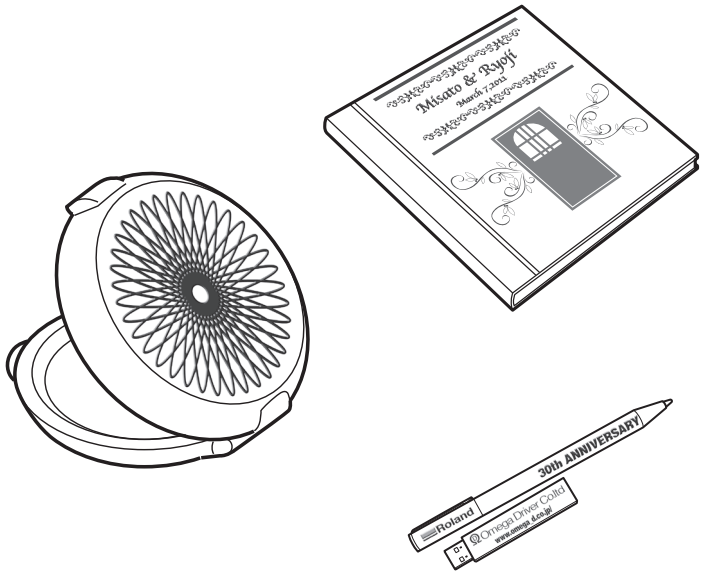
Roland

VersaUV LEF-12

MASTER GUIDE



Thank you very much for purchasing this product.

- To ensure correct and safe usage with a full understanding of this product's performance, please be sure to read through this manual completely and store it in a safe location.
- Unauthorized copying or transferral, in whole or in part, of this manual is prohibited.
- The contents of this document and the specifications of this product are subject to change without notice.
- The documentation and the product have been prepared and tested as much as possible. If you find any misprint or error, please inform us.
- Roland DG Corp. assumes no responsibility for any direct or indirect loss or damage which may occur through use of this product, regardless of any failure to perform on the part of this product.
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Roland DG Corporation

This system (including the housing and safety device) is a Class 1 laser product.
Laser specifications of this system (including the housing)
Wavelength: 655 nm, maximum output: less than 46.5 µW, pulse duration: 3.0 µs

Complies with IEC 60825-1 Edition 2.0 (2007-03).
Complies with FDA performance standards for laser products except for deviations pursuant to Laser notice No.50 dated June 24, 2007.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in radiation exposure.

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URL: http://www.rolanddg.com/gpl/

RolandDG Corp. has licensed the MMP technology from the TPL Group.

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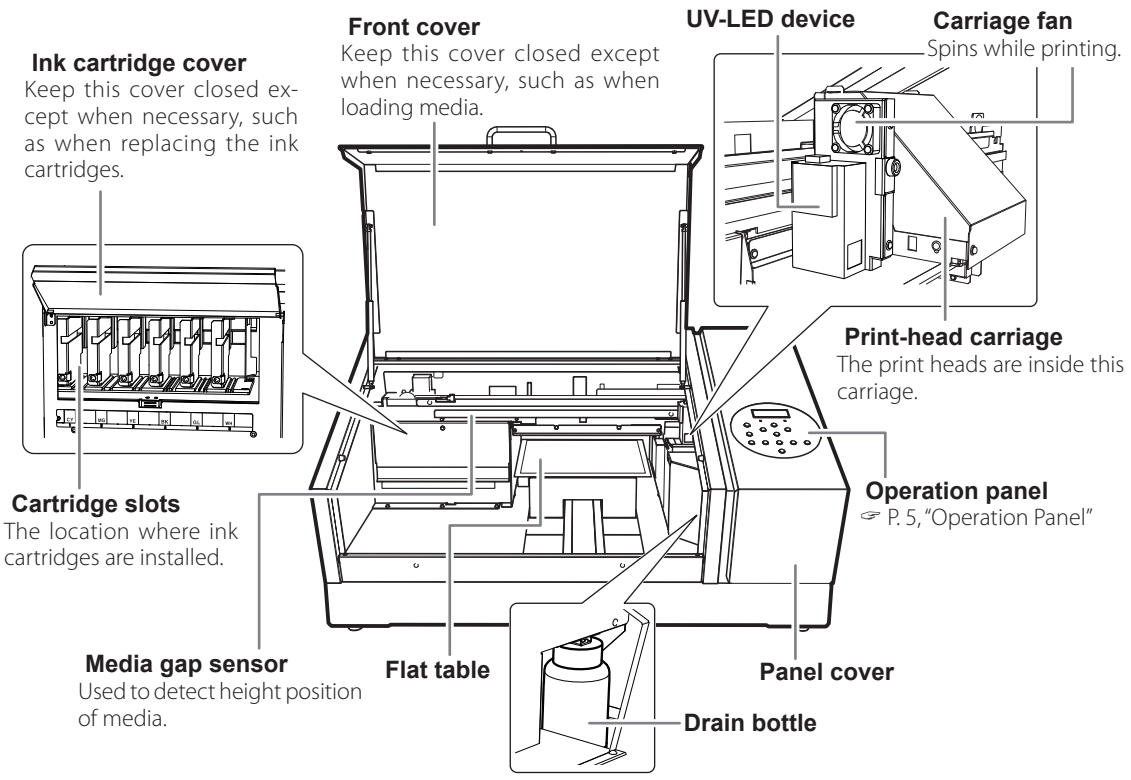
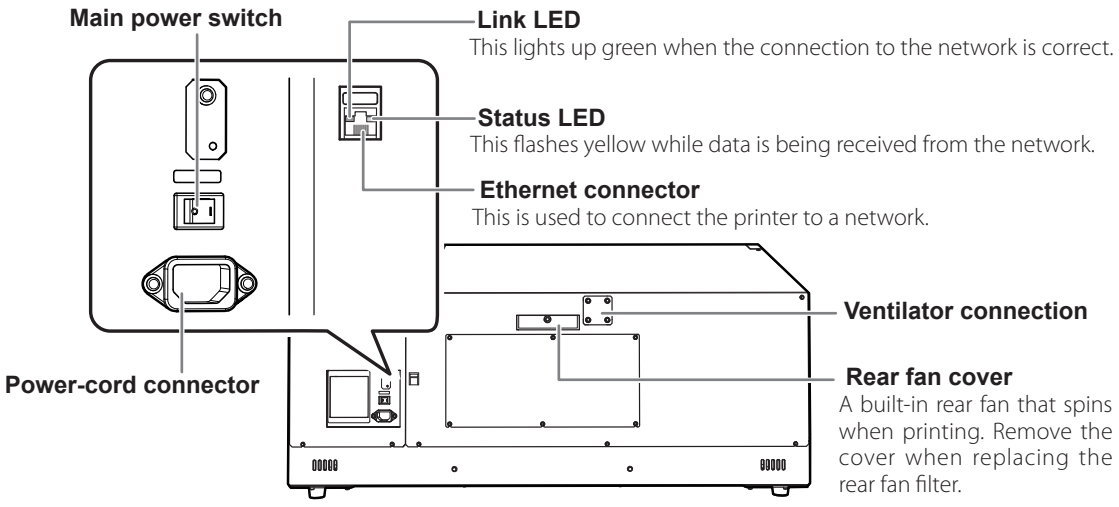
Part Names and Functions

Printer Unit

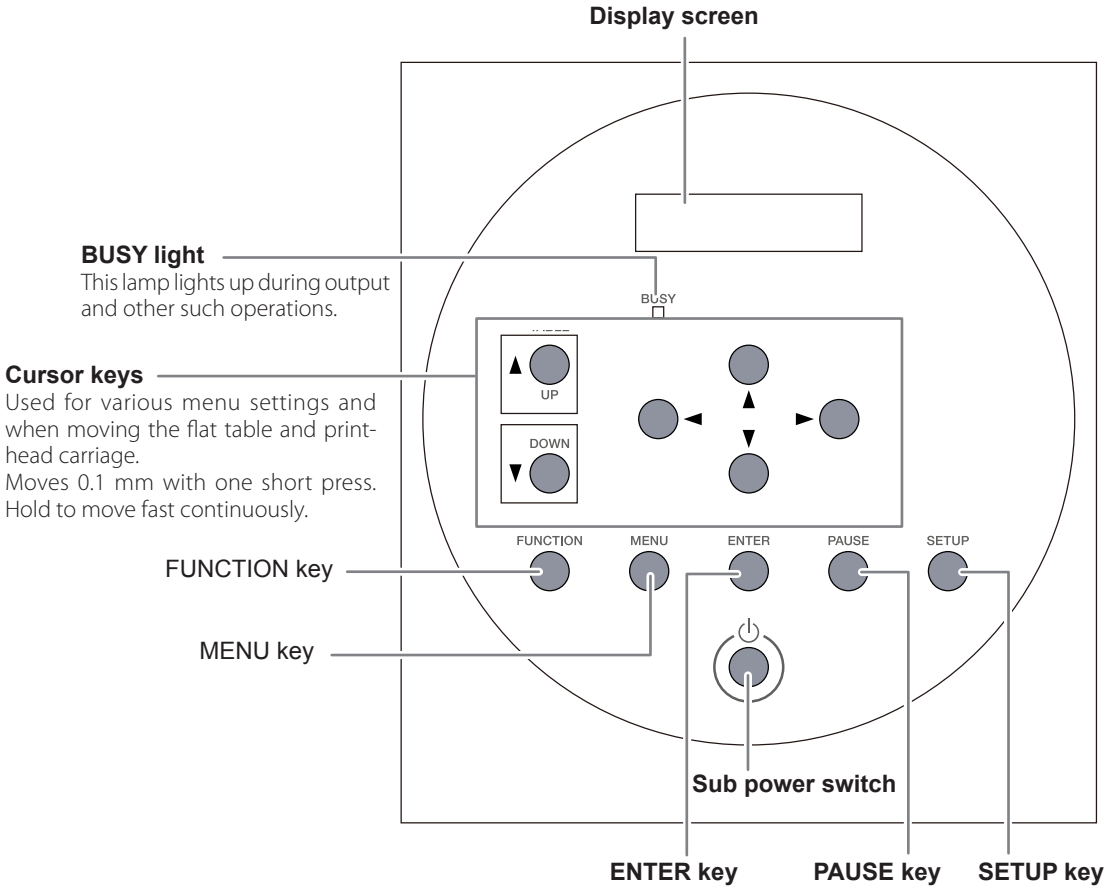
Front


Front cover
Keep this cover closed except when necessary, such as when loading media.
UV-LED device
Carriage fan
Spins while printing.
Ink cartridge cover
Keep this cover closed except when necessary, such as when replacing the ink cartridges.
Print-head carriage
The print heads are inside this carriage.
Operation panel
☞ P. 5, "Operation Panel"
Cartridge slots
The location where ink cartridges are installed.
Media gap sensor
Used to detect height position of media.
Flat table
Panel cover
Drain bottle

Rear


Main power switch
Link LED
This lights up green when the connection to the network is correct.
Status LED
This flashes yellow while data is being received from the network.
Ethernet connector
This is used to connect the printer to a network.
Ventilator connection
Rear fan cover
A built-in rear fan that spins when printing. Remove the cover when replacing the rear fan filter.
Power-cord connector

Operation panel



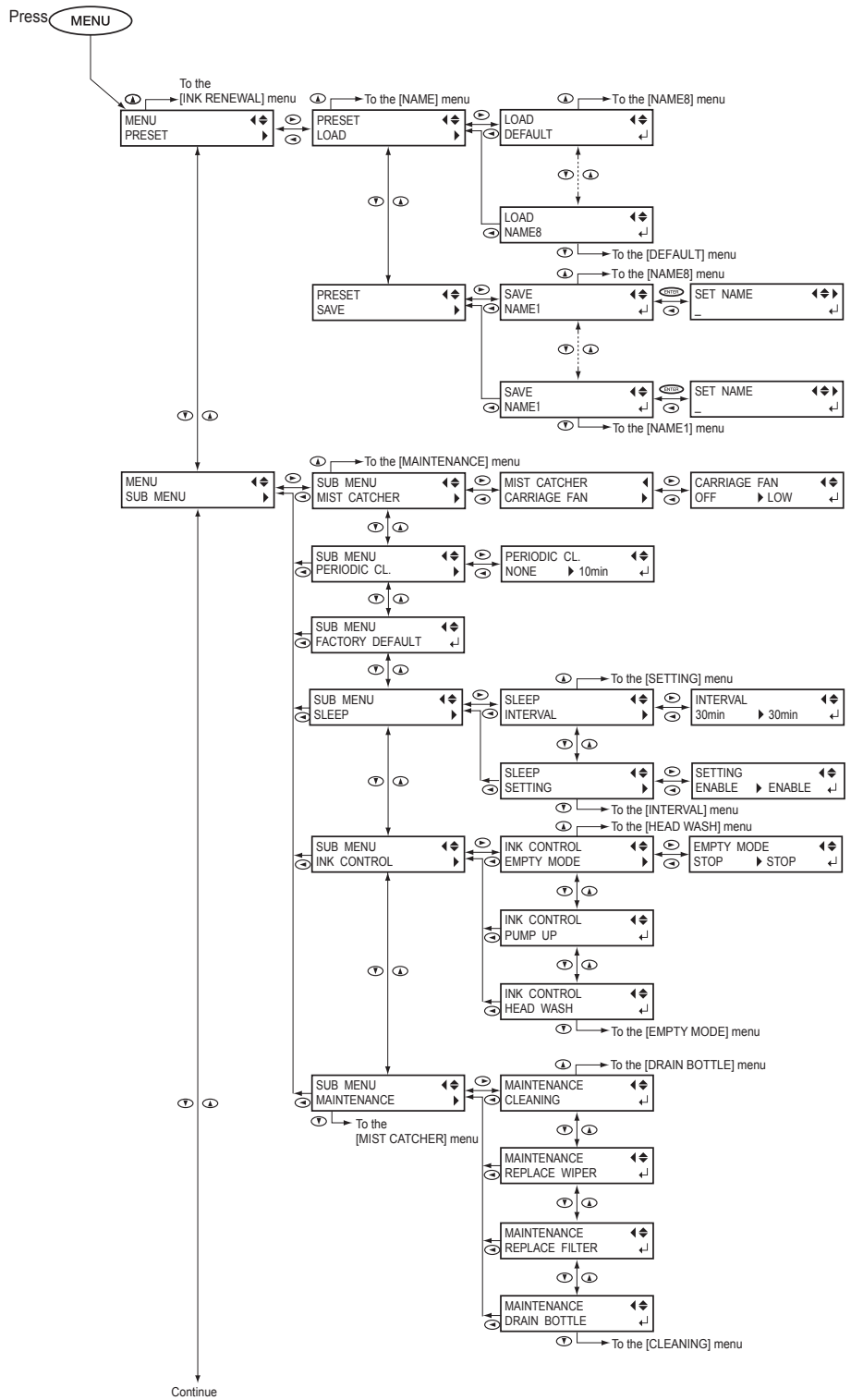
Operation Panel Conventions

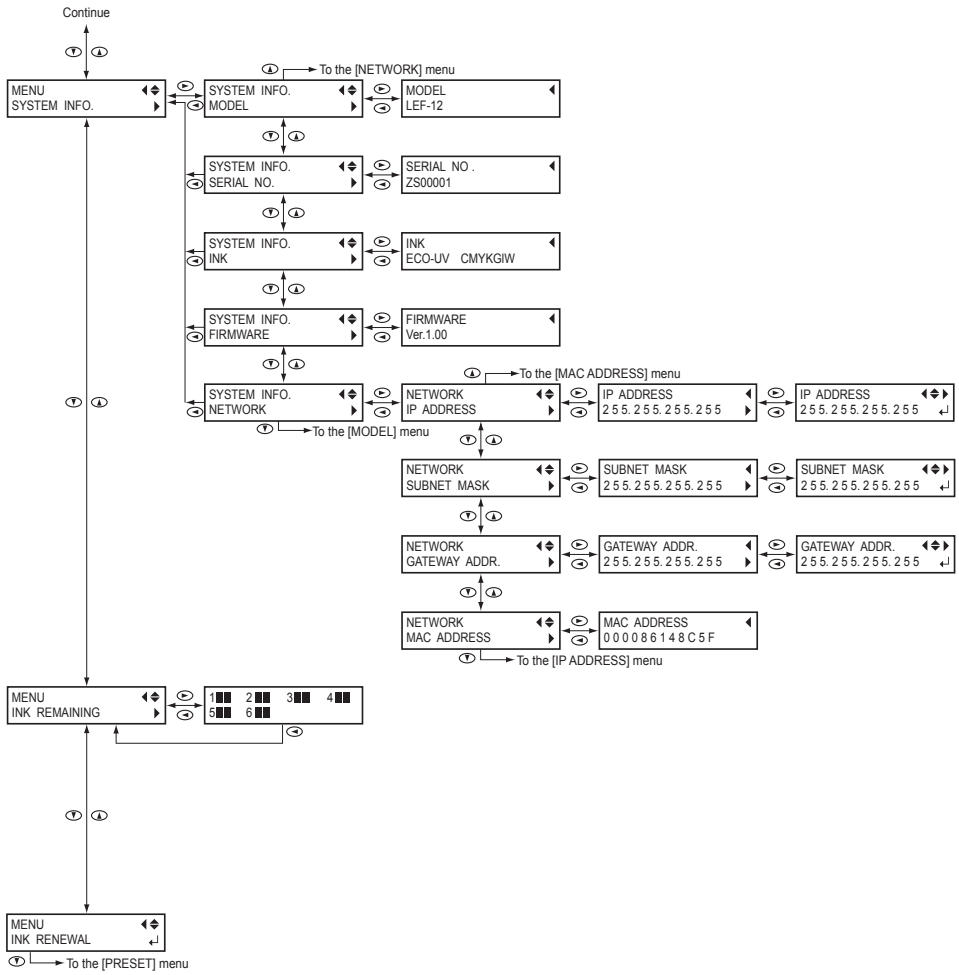
In this document, the keys on the operation panel are indicated by the following images.

- MENU **MENU key**
- SET UP **SETUP key**
- ENTER **ENTER key**
- ▲ ▼ **Cursor keys (select menus, move flat table forward and back)**
- ◄ ► **Cursor keys (select menus, move print-head carriage)**
- ▲ +Z ▼ −Z **Cursor keys (move in the direction of the flat table's height)**
- FUNCTION **FUNCTION key**
- PAUSE **PAUSE key**

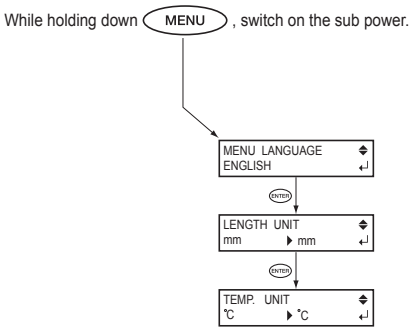
Menu List

Main Menu

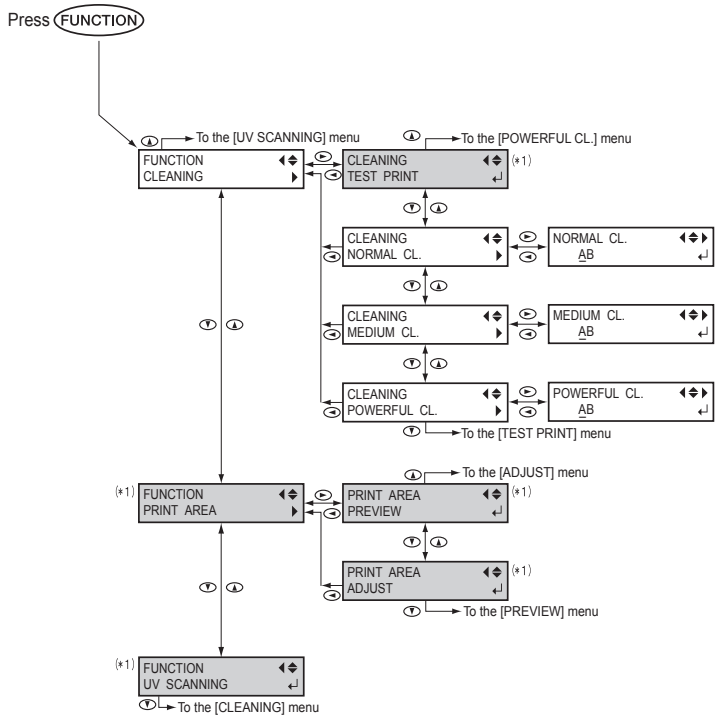




Language and Unit Menu



Function Menu



(*1) Not displayed if the setup of media is not completed (when SET UP is dark or flashing).

Basic Operation

Basic Operation Flow

1. Power on
☞ P. 10, "Switching the Power On and Off"

When Starting Daily Operations

2. Secure the media
☞ P. 11, "How to Secure the Media"

3. Set the height position of media
☞ P. 13, "Set height position of media (automatic)"; P. 14, "Set height position of media (manual)"

4. Set the print area
☞ P. 16, "Set the print area directly"; P. 17, "Specifying the Print Area from the Print Center Position"

5. Perform printing test and normal cleaning
☞ P. 19, "Printing Test and Normal Cleaning"

Actual Printing

6. Repeat 2 through 4.

7. Print
☞ P. 21, "Start Printing"

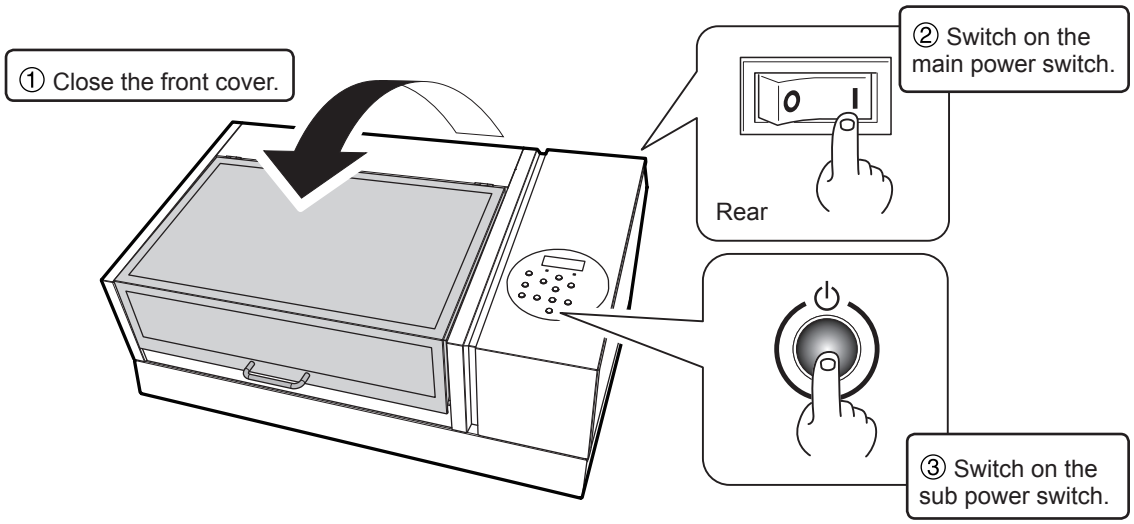
Perform "Printing Test and Normal Cleaning" (P. 19) periodically during operation also.

After Daily Operations

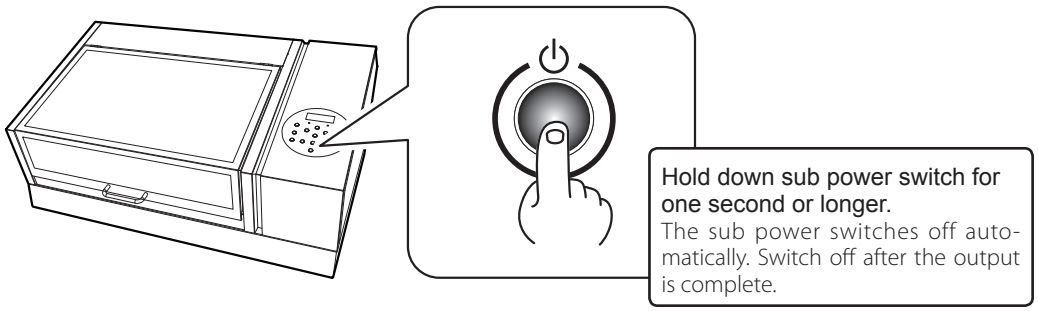
8. Perform printing test and normal cleaning
☞ P. 19, "Printing Test and Normal Cleaning"

Switching the Power On and Off

Switch On



Switch Off


Hold down sub power switch for one second or longer.
The sub power switches off automatically. Switch off after the output is complete.

IMPORTANT!

Leave the main power switched on at all times.

Never switch off the main power. Leaving the main power enables the automatic maintenance to be carried out periodically. If the automatic maintenance is not carried out, it may result in the breakdown of this machine, such as the breakdown of the print heads.

Never switch off the main power or unplug the power cord suddenly while operation is in progress.

Switching off the main power or unplugging the power cord suddenly while operation is in progress may damage the print heads. Be sure to first switch off the sub power. If the main power is accidentally switched off, immediately turn the main power and sub power back on.

How to Secure the Media

Conditions for Usable Media

*In this manual, the printing material used for output is called "media".

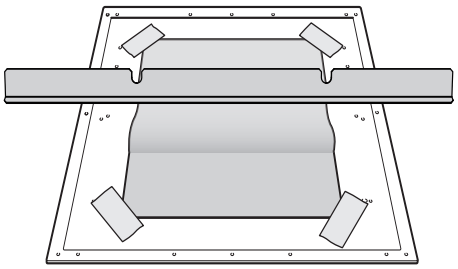
Maximum size: width 335 mm (13.19 in) x depth 310 mm (12.2 in) x height 100 mm (3.94 in)
Maximum weight: 5 Kg (11.02 lbs)

IMPORTANT!

- Do not use media that is charged with static electricity.
- This printer cannot print on all materials. When selecting media, be sure to carry out testing in advance to make sure that satisfactory print quality can be obtained.
- There is a limit to the variation in the unevenness on the print surface.

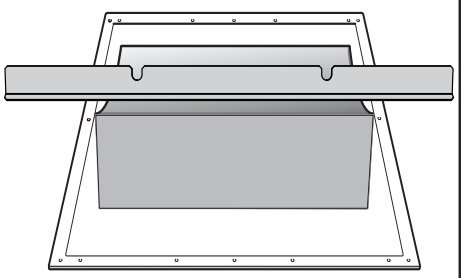
☞" P.37, "Height Settings When the Print Surface is Uneven."

- Depending on the type of media and the installation method, the height may not be set correctly. The machine may malfunction if printing is performed under these conditions. Do not use the following types of media.



Media that easily becomes loose

If media becomes loose, the media gap sensor cannot detect the height correctly. Make sure you place media so that it does not become loose. If the media does become loose, you can use an adhesive sheet to hold it in place.



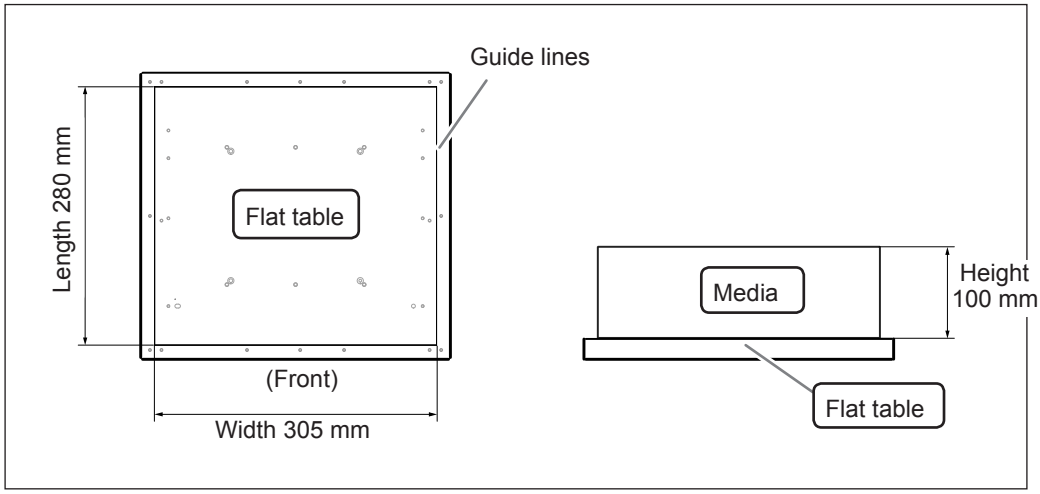
Media made from soft material

If the media is made from soft material, the pressure applied against the media gap sensor is too weak. This prevents it from detecting the height correctly.

Printable area

The maximum printable area is width 305 mm (12.01 in) x depth 280 mm (11.03 in) x height 100 mm (3.94 in).

* The maximum printable area is inside the guide lines on the flat table.
* The maximum size of the media and the printable area are different.



How to Secure the Media

Procedure

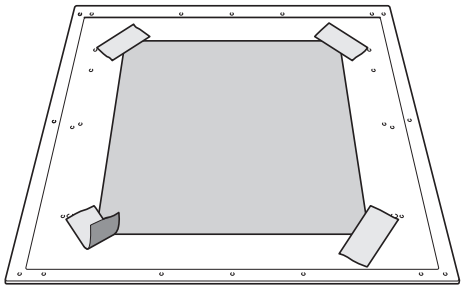
❶

Make sure the screen in the figure is displayed.
If it is not displayed, check that nothing has been placed on top of the flat table, and hold (SET UP) for a long time.

The flat table will come forward into a position in which the media can be set up. If the screen in the figure is not displayed, you cannot set up the media.

❷ **Secure the media in place.**

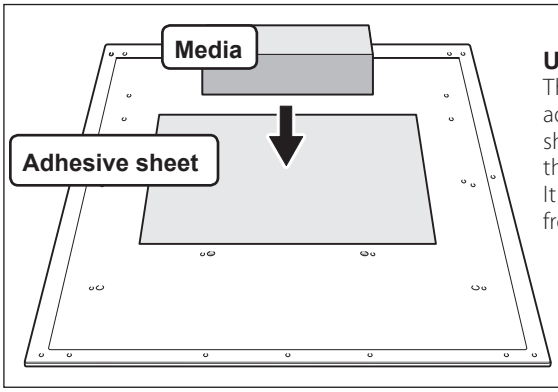
For printing tests, use media for testing (width 80 mm (3.15 in) x length 70 mm (2.76 in) or more), and not the media you will actually use.



Affix using tape

This method secures the media in place using commercially available tape affixed directly to the flat table. You can use this method to secure media when using media, such as thin paper media, that can be secured in place simply by taping it.

It can be set anywhere as long as it does not protrude from the top of the flat table. Be aware that when there are folds or kinks in the media, they might hit the interior of the printer and cause damage.



Using an adhesive sheet
This method secures the media in place using an adhesive sheet, which is included. Load the adhesive sheet on the flat table, and press the media on top of the sheet to set.
It can be set anywhere as long as it does not protrude from the top of the flat table.

Set height position of media (automatic)

This setup sets the media's height position automatically to a suitable position while printing. While setting up, the flat table moves automatically and detects the media height when the media touches the media gap sensor.

*** If the print surface is uneven, there is a limit to the area of unevenness.**

☞ P. 37, "Height Settings When the Print Surface is Uneven."

When you do not want to let the media gap sensor to touch the media, automatic setup is not suitable in the following cases. Set the height manually.

☞ P. 14, "Set height position of media (manual)"

Procedure

1 **Secure the media in place on the flat table.**

☞ P. 11, "How to Secure the Media"

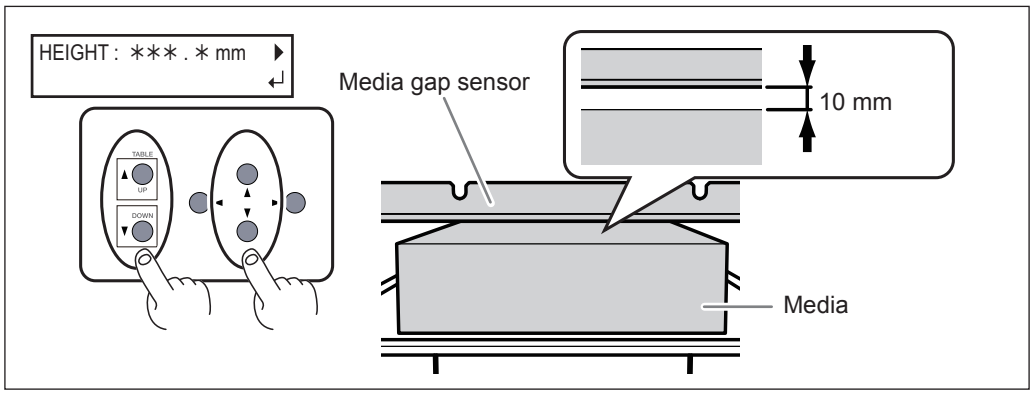
2 SETUP MEDIA

Press SET UP **.**

SET UP starts to flash.

3 **Press** ▲ ▼ ▲+Z ▼−Z **to move the flat table.**

Move the print surface to a position 10 mm (0.39 in) away from the media gap sensor.
If height setting was done before, pressing any one of the cursor keys raises the flat table to the height position set the last time. Move the flat table after it stops rising.



4 **Press ►.**

5 AUTO DETECTION ◄ ↵ **Press ENTER.**

The flat table moves, and media height detection starts. The flat table lifts while moving backward and forward until the media reaches a position where it comes in contact with the media gap sensor.
The media's height will be set automatically to a position about 1 mm (0.04 in) away from the print head's ink emission surface.

PRINT POS. TYPE ◄►
LOWER RIGHT ↵

When the flat table stops moving and the figure on the left appears, the setting is completed. Proceed to P. 15, "Choosing How to Specify the Print Area".

Set height position of media (manual)

Set the media's height position manually to a position suitable for printing.
Manual setup takes a little longer than the automatic setup because alignment is done by sight, but use it when you do not want to let the media gap sensor to touch the media. (The media gap sensor touches the media in automatic setup.)

*** If the print surface is uneven, there is a limit to the area of unevenness.**

☞ P. 37, "Height Settings When the Print Surface is Uneven."

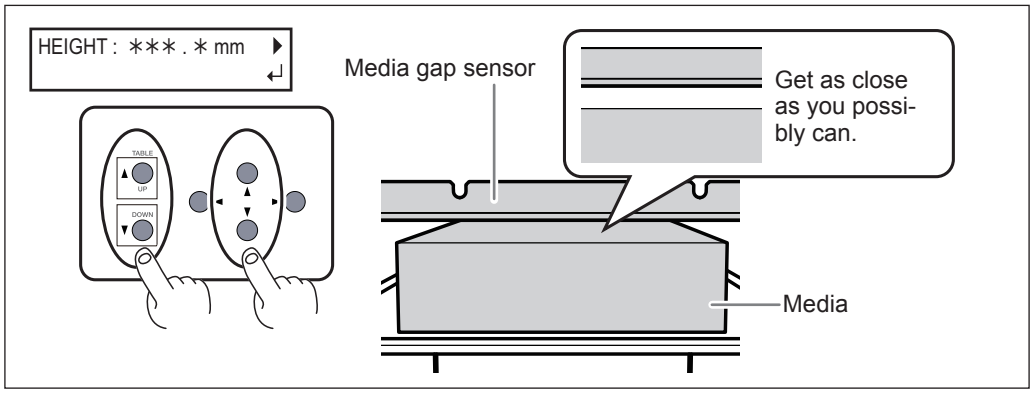
Procedure

1 **Secure the media in place on the flat table.**

☞ P. 11, "How to Secure the Media"

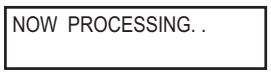
2 SETUP MEDIA **Press SET UP.**
SET UP starts to flash.

3 **Press ▲ ▼ ▲+z ▼−z to move the flat table.**
Move the media gap sensor as close as possible to the print surface until they are in a position where they are just about to touch.
If height setting was done before, pressing any one of the cursor keys raises the flat table to the height position set the last time. Move the flat table after it stops rising.



When you press ► here, the screen in the figure is displayed. Press ◄ to return to the original screen.

4 When the location is set, press ENTER.



The flat table moves back and forth to check automatically that the media is not touching the media gap sensor.

When the flat table stops moving and the figure on the left appears, the setup is completed. Proceed to P. 15, "Choosing How to Specify the Print Area".

When the media touches the media gap sensor, the screen shown in the figure appears and setup is canceled. If the media position becomes misaligned after the setup or, if some parts are more higher than the print surface position set, the media may come in contact with the media gap sensor. Check and redo from Procedure 2.

Choosing How to Specify the Print Area

There are two ways you can set the print area on this machine. It is best to decide on a method depending on the shape of the object you are printing on.

Specify the print area directly	Enter the "Print-Start Position (lower right of print area)", and the "Width" and "Length" of the print area to specify the print area directly. This method is appropriate when the print site is level, and you can clearly specify the print area.
Specifying the Print Area from the Print Center Position	When an approximate print area has been determined, specify the print area's width and length after specifying the center position of the print area. This method is appropriate when clear specification of the print area is difficult, or when the print site is curved or uneven.

For transparent media and high-gloss media with dark color used on the print surface

A laser beam is used to specify the print area. Depending on the material used on the media, such as transparent media and high-gloss media with dark color used on the print surface, the laser beam is difficult to see. In such cases, the laser beam may become more visible by placing masking tape on the print surface and on the back.

Print heads may return to the standby position automatically while specifying the print area.

When you are specifying the print area and the print heads are above the flat table, the print heads return to the standby position automatically if you leave them in the same position for approximately 40 seconds. This behavior prevents print heads from drying out and breaking down. If the print heads return to the standby position, the menu goes back to the previous menu so you must repeat setup.

Specify the print area directly

Enter the "Print-Start Position (lower right of print area)", and the "Width" and "Length" of the print area to specify the print area directly. This method is appropriate when the print site is level, and you can clearly specify the print area.

Procedure

1 **Set height position of media.**

☞ P. 13, "Set height position of media (automatic)"; P. 14, "Set height position of media (manual)"

2

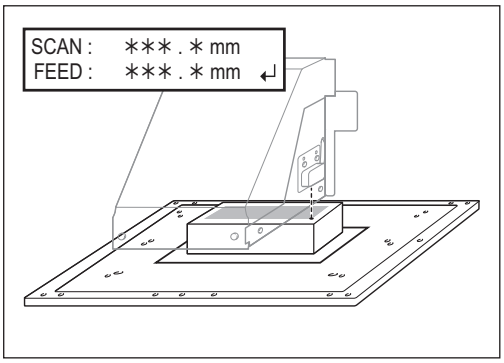
PRINT POS. TYPE ◆▶
LOWER RIGHT ↵

Press ◄ ► to select "Lower right".
Press ENTER to accept.

3 **Press any one of ▲ ▼ ◄ ►.**

The flat table moves to the rear, the print heads move to above the flat table, and the laser pointer illuminates.

4



Press ▲ ▼ ◄ ► to move the laser pointer until it points to a position to the right foreground of the print area.
Press ENTER to accept.

Print heads return to the standby position.

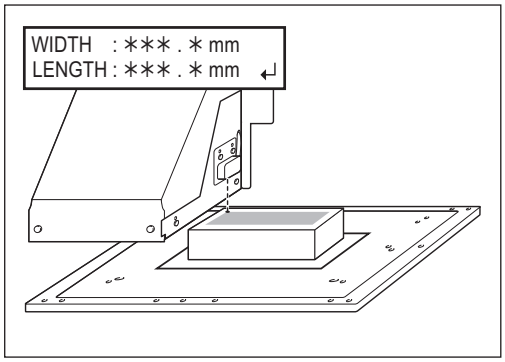
CHECK TABLE
HEIGHT ↵

When the media touches the media gap sensor, the screen shown in the figure appears and there will be no setup information in the machine. Redo from P. 13, "Set height position of media (automatic)," or P. 14, "Set height position of media (manual).".

5 **Press any one of ▲ ▼ ◄ ►.**

The flat table moves to the front, and the print heads move to the left side of the flat table.

❻

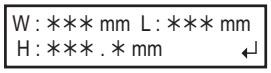


Press ▲ ▼ ◄ ► to move the laser pointer until it points to a position to the inner left of the print area.

For a test print, set width to 80 mm or more, and length to 70 mm or more. An error will occur and test prints cannot be done if the area is smaller than this.

Press ENTER to accept.

The print area is specified. Print heads return to the standby position.



Make sure the "W (Width), L (Length), and H (Height)" values on the menu screen are as intended.

❼ **Close the front cover.**

You can also fine-tune the print area after setup.

☞ P. 36, " You can fine tune the print area that is set"

Specifying the Print Area from the Print Center Position

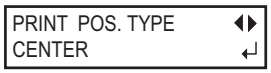
When an approximate print area has been determined, specify the print area's width and length after specifying the center position of the print area. This method is appropriate when clear specification of the print area is difficult, or when the print site is curved or uneven.

Procedure

❶ **Set height position of media.**

☞ P. 13, “Set height position of media (automatic)”; P. 14, “Set height position of media (manual)”

❷

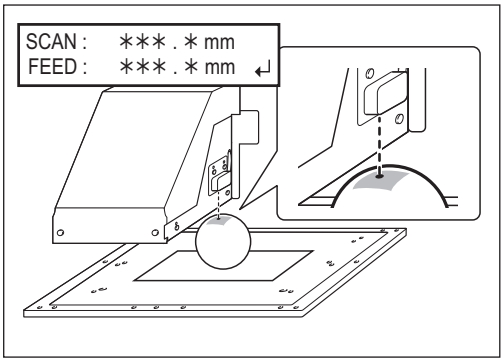


Press ◄ ► to select “CENTER”.
Press ENTER to accept.

❸ **Press any one of ▲ ▼ ◄ ► .**

The flat table moves to the rear, the print heads move to above the flat table, and the laser pointer illuminates.

④



Press ▲ ▼ ◄ ► to move the laser pointer until it points to the center position of the area you want to print.

Press ENTER to accept.

Print heads return to the standby position.

CHECK TABLE
HEIGHT ↵

When the media touches the media gap sensor, the screen shown in the figure appears and there will be no setup information in the machine. Redo from P. 13, "Set height position of media (automatic)," or P. 14, "Set height position of media (manual)."

⑤

WIDTH : ✱✱✱ . ✱ mm
LENGTH : ✱✱✱ . ✱ mm ↵

Press ▲ ▼ to enter the length of the area you want to print.

Press ◄ ► to enter the width of the area you want to print.

For a test print, set width to 80 mm or more, and length to 70 mm or more. An error will occur and test prints cannot be done if the area is smaller than this.

Press ENTER to accept.

The print area is specified. Print heads return to the standby position.

W : ✱✱✱ mm L : ✱✱✱ mm
H : ✱✱✱ . ✱ mm ↵

Make sure the "W (Width), L (Length), and H (Height)" values on the menu screen are as intended.

⑥ **Close the front cover.**

You can also fine-tune the print area after the setup.

☞ P. 36, " You can fine tune the print area that is set"

Printing Test and Normal Cleaning

Make sure to perform a printing test in the following cases. Perform normal cleaning when there is a nozzle drop-out.

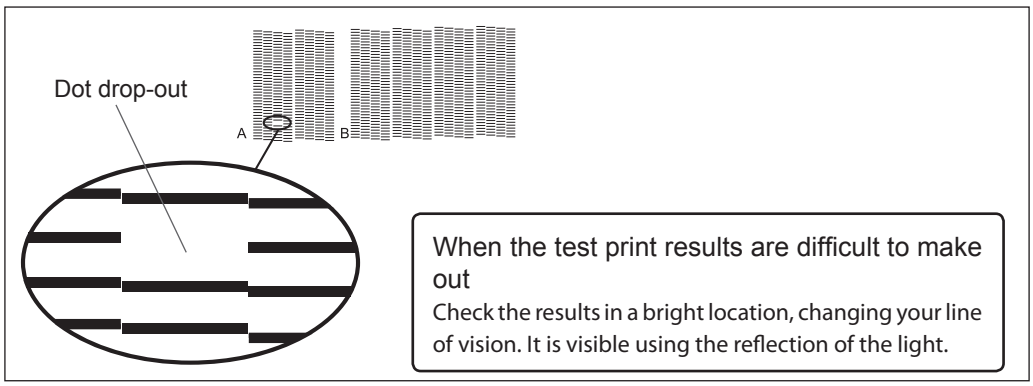
- **When starting operation for the day**
- **When ending operation for the day**

Carry out printing tests periodically during daily operations also to make sure no dot drop-out occurs.
If dot drop-out occurs in a printing test, perform cleaning of the print heads (Normal Cleaning). Leaving the dot drop-out untreated may damage the print heads. Please make sure to check each day after operation.

How to Perform a Printing Test

Procedure

1. **Complete steps up to specifying the print area using test print media.**
   ☞ **P. 16, "Specify the Print Area Directly", P. 17, "Specifying the Print Area from the Print Center Position"**
   A test print is printing to check whether or not there is dot drop-out. Use media for testing, and not the media that you will actually use.
2. **Press** FUNCTION **.**
3. FUNCTION ◀◆▶ / CLEANING ▶ — **Press** ► **.**
4. CLEANING ◀◆▶ / TEST PRINT ↵ — **Press** ENTER **.**
   A test pattern is printed.



When the test print results are difficult to make out
Check the results in a bright location, changing your line of vision. It is visible using the reflection of the light.

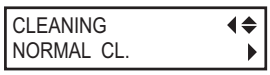
Normal Cleaning Method

Procedure

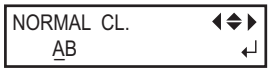
1. **Press FUNCTION.**

2.

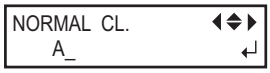
   Press ▼ to display the figure on the left.
   Press ► , and then ▼.

3. 

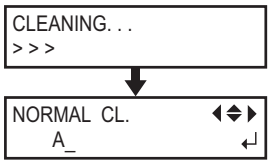
   Press ►.

4. 

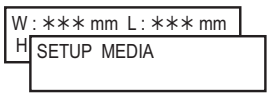
   Press ◄ ► to select the group you do not want to clean.

5. 

   Press ▲ ▼ to hide that group.
   Repeat this until only the groups that require cleaning are displayed, and then press ENTER.

6. 

   Normal cleaning starts.
   When it finishes, the screen shown in the figure appears again.

7. 

   Press MENU and then ◄ to return to the original screen.

8. **Perform a printing test again to make sure the dot drop-out has been corrected.**
   If the problem persists, try performing cleaning a second time. When used for a long time, sometimes the problem will not be fixed even when cleaning two or three times. If this is the case, clean using a different method.
   ☞ P. 56, “Medium and Powerful Cleaning”

Start Printing

This section explains how to print from this machine, using the included VersaWorks (software RIP). It assumes that you have already completed the following tasks.

- Installed VersaWorks
- Connected VersaWorks and this machine
- Learned the basic operation of VersaWorks
  - ☞ "Roland VersaWorks Quick Start Guide" (included)
- Setup of media on this machine
  - ☞ P. 13, "Set height position of media (automatic)"; P. 14, "Set height position of media (manual)"; P. 16, "Specify the print area directly"; P. 17, "Specifying the Print Area from the Print Center Position"
- Prepared print data

  This section uses data saved as a PS file.

  For information on file formats that you can read directly with VersaWorks and on how to output from the application, see "VersaWorks Quick Start Guide".

1. Load print area set on this machine into VersaWorks.

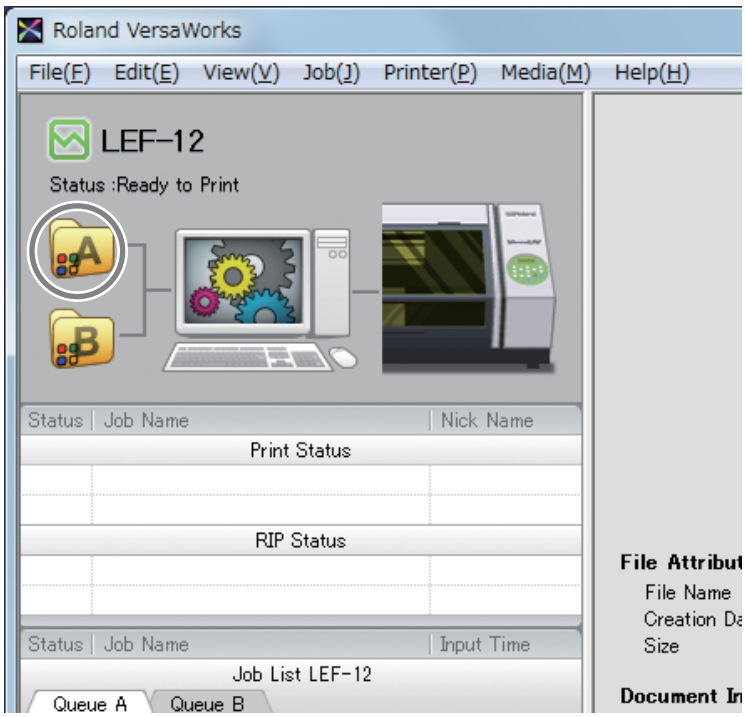
❶ Launch VersaWorks.

Check that:

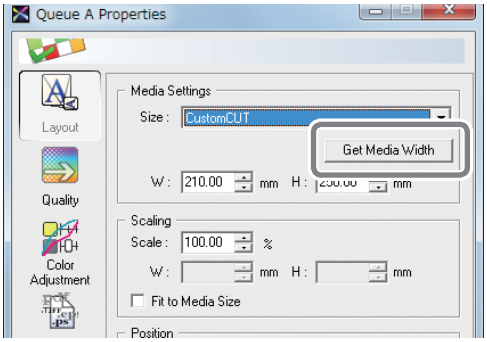
- **VersaWorks connects to this machine**
- **Its status is "Ready to Print"**

❷ Double-click A (or B).

A Input Property appears. (Open the property for the input setting to use.)

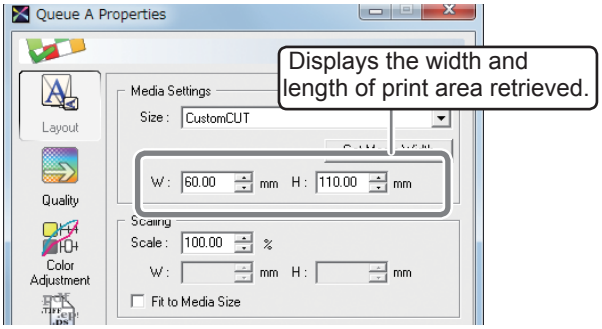


3



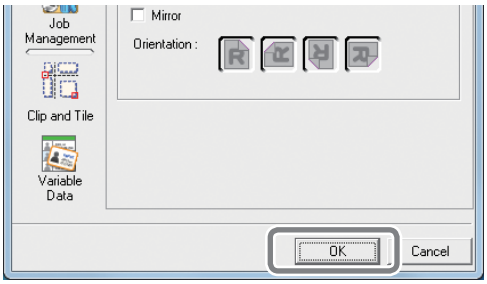
Click "Get Media Width".

Load the print area set on this machine into VersaWorks.



* When performing other settings, see Quick Start Guide and Help for VersaWorks, or the included "White & Gloss Ink Guide".

4

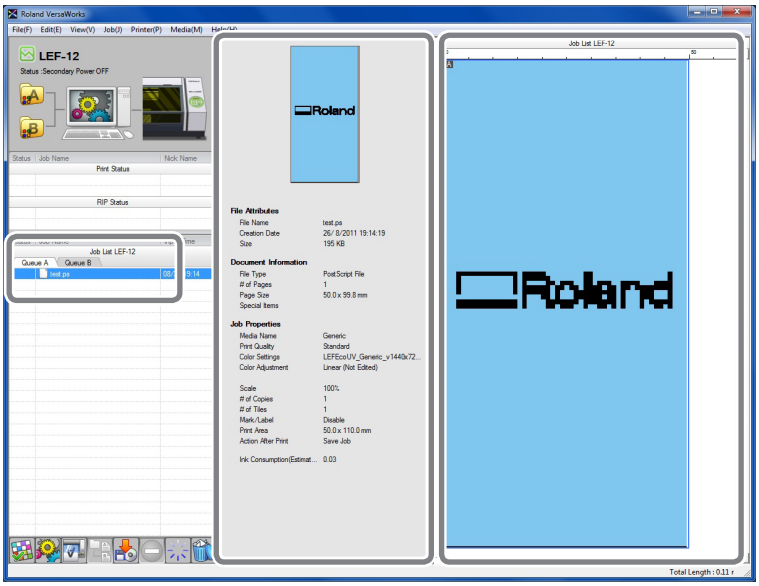


Click [OK].

2. Output print data using VersaWorks.

1 Click the [Queue A] tab in the [Job List], and drag-and-drop the print data to the job list in A Input (if the print setting is done on B Input, this should be the job list in B Input).

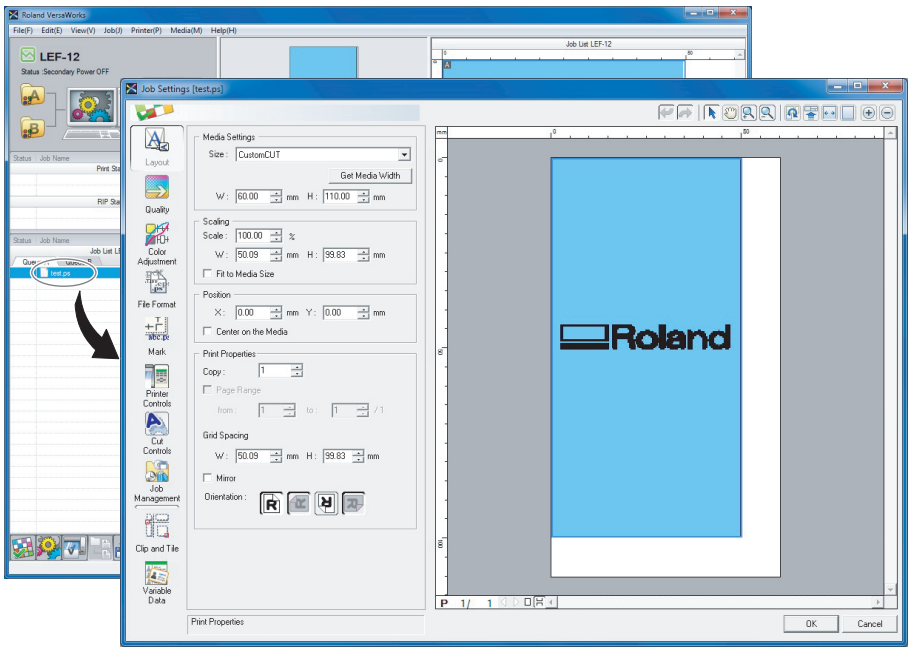
Details of the data appears in the preview window, and the layout on the media appears in the layout window.



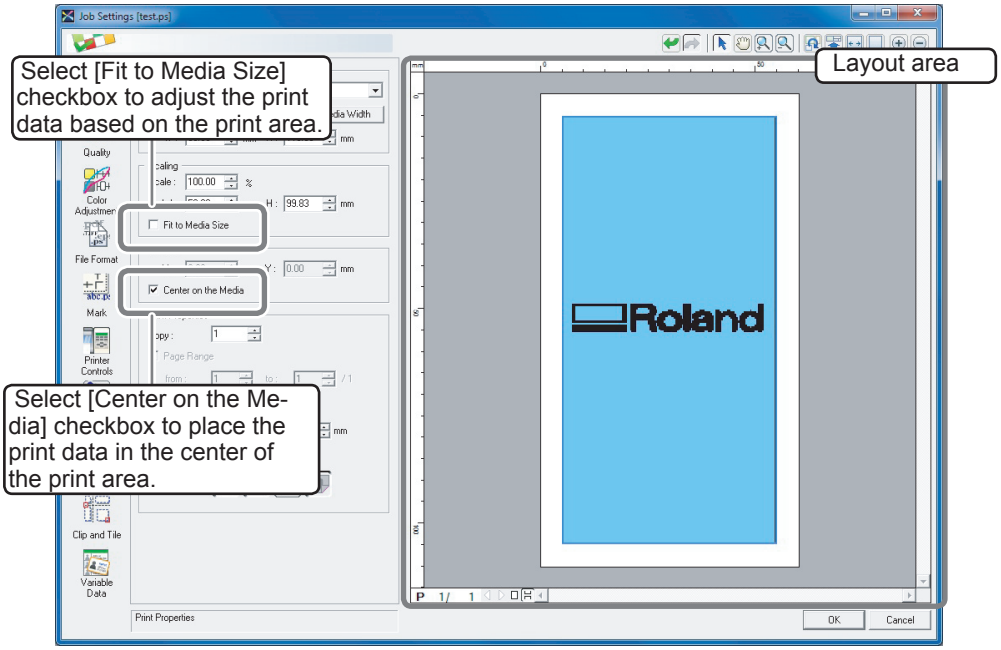
Preview window Layout window

2 Double-click a print job in the job list.

The [Job Settings] screen appears.



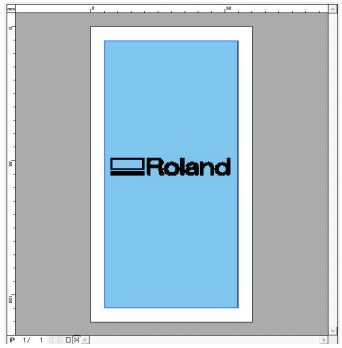
The white part in the layout area is the print area that was loaded in STEP *1.*. The portion that is not in the print area will not be printed.
Use this screen to fit the print data in the print area and adjust its position.


Select [Fit to Media Size] checkbox to adjust the print data based on the print area.
Layout area
Select [Center on the Media] checkbox to place the print data in the center of the print area.
Fit to Media Size
Center on the Media
Roland
OK
Cancel

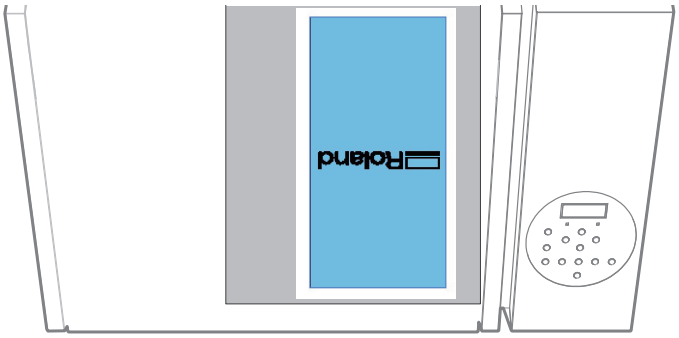
* This is an example when "Center on the Media" is selected.

The screen display appears in the opposite orientation.

The orientation in the VersaWorks screen display is the opposite of the actual print orientation. Make sure the media orientation is correct.

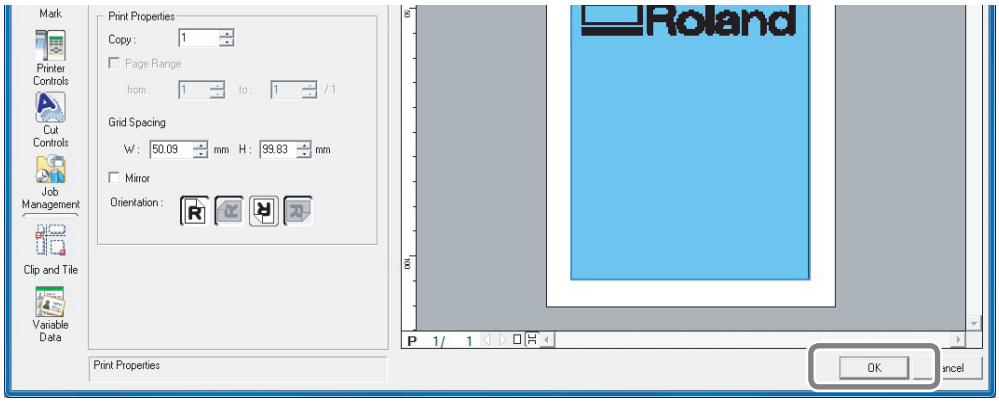


Orientation on the VersaWorks screen

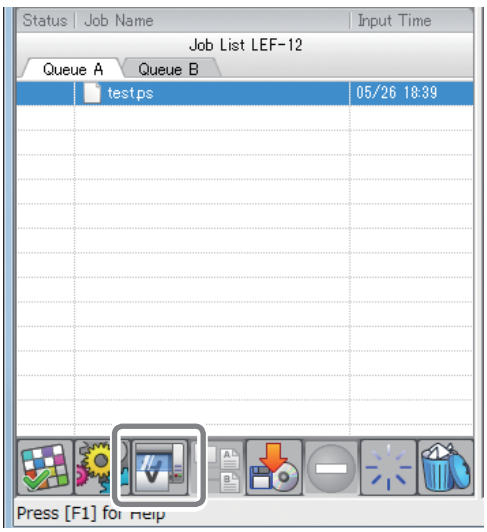


Actual print orientation

❸ **When the printing position is adjusted, click [OK].**



❹



Click .
Start printing.

FINISHED PRINT ↵	When the printing ends, the screen shown in the figure appears on the control panel. Data from the computer is not accepted while this screen is displayed.
W : ✱✱✱ mm L : ✱✱✱ mm H : ✱✱✱ . ✱ mm ↵	To allow it to accept data from the computer, press ENTER to go back to the screen shown in the figure.

* Make sure to check for dot drop-out by performing printing tests after daily operations. If dot drop-out is present, perform normal cleaning.

☞ P. 26, "Printing Tests and Normal Cleaning After Daily Operations"

Pausing or Canceling Output

You can pause and cancel printing before it finishes. However, we do not recommend resuming printing because colors may be uneven in the place where output stopped.

Procedure

1. **Press (PAUSE) while printing.**
   This pauses printing operation.
   Press (PAUSE) again if you want to resume printing.
   To cancel the printing, go the next step without pressing (PAUSE).

2.

   When the screen shown in the figure appears, press (SET UP).
   This cancels printing operation.

3. **Stop sending the output data from the computer.**

Printing Tests and Normal Cleaning After Daily Operations

Make sure to check for dot drop-out by performing printing tests after daily operations. If dot drop-out is present, perform normal cleaning.

☞ P. 19, "Printing Test and Normal Cleaning"

If problems such as dot drop-out persist even after you have performed normal cleaning several times, then perform medium or powerful cleaning.

☞ P. 56, "Periodic Cleaning Maintenance"

Chapter 2
Fully Utilizing the Machine

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Important points to check before printing

Four important points (measures for ink mist and UV reflected light)

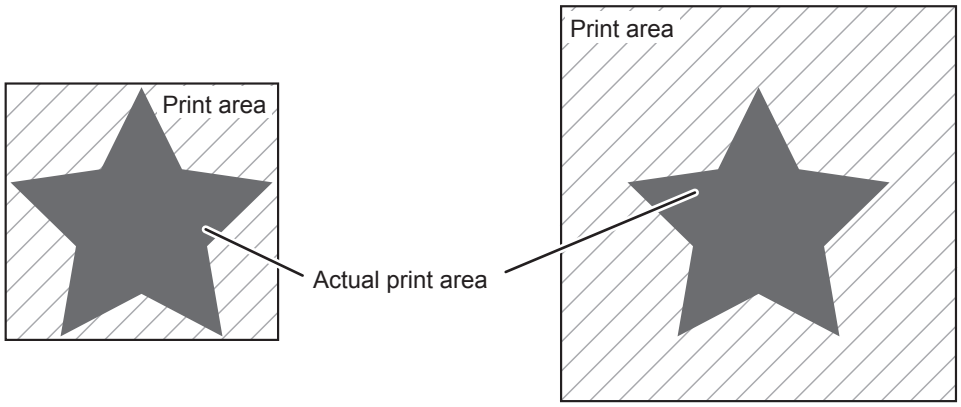
On this machine, ink affixed on the surface of the print head might be cured by ink mist (ink splash upon printing) and reflection of the UV lamp light. If ink affixed on the surface of the print head is cured, it might cause dot drop-outs, and if you use the product without taking any measures, it might cause a failure which requires replacement of the print head.
While daily cleaning is important to prevent dot drop-outs, there are also four important points to check before printing. Be sure to check the four points given below:

1. You cannot use a object which reflects light as a print object (media).

Mirrors and stainless materials, etc. which are likely to reflect the UV lamp light promote curing of the surface of the print head, and therefore they cannot be used as a print object (media).

2. Set the minimum required size as the print area*.

This machine exposes the UV lamp light to all the area specified as the print area. If the blank area (where ink is not applied) in the print area is large, the reflection of the UV lamp light becomes large, promoting curing of the surface of the print head. Be sure to specify the minimum required size as the print area.



The blank area in the print area is minimized.

Good

The print area has a lot of unnecessary blank areas.

Not Good

* This machine requires you to specify a rectangle area in the print object where you want to make a print as the "print area". For information on how to specify the print area, refer to p. 15 "Choosing How to Specify the Print Area", p. 16 "Specify the print area directly", and p. 17 "Specifying the Print Area from the Print Center Position".

3. A jig might be required according to the shape of the print object (media).

The distance between the print head surface and the print object (media) surface becomes longer upon print according to the shape of the print object (media). If the distance becomes longer, ink mist is likely to occur, and the UV lamp light is also likely to be reflected. To prevent ink mist and reflection of the UV lamp light, you need to level the surface of the print object (media) as much as possible using a jig. Some examples in which a jig is required are explained below:

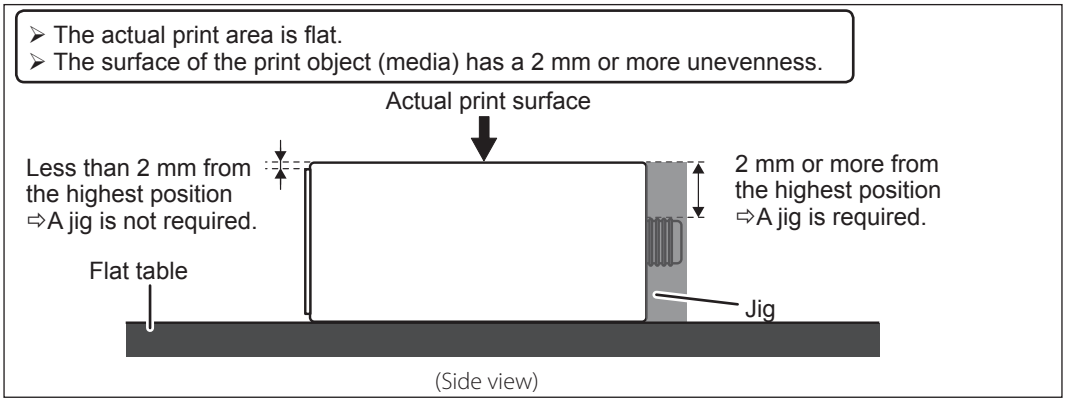
* If the surface of a jig is likely to be reflected, it has an adverse effect. Coat the surface of a jig with "matte black" such as acrylic lacquer.

When a print object (media) has a 2 mm or more difference in the height

If the surface of a print object (media) is uneven and/or curved, and the height difference is 2 mm or more, a jig needs to be used.

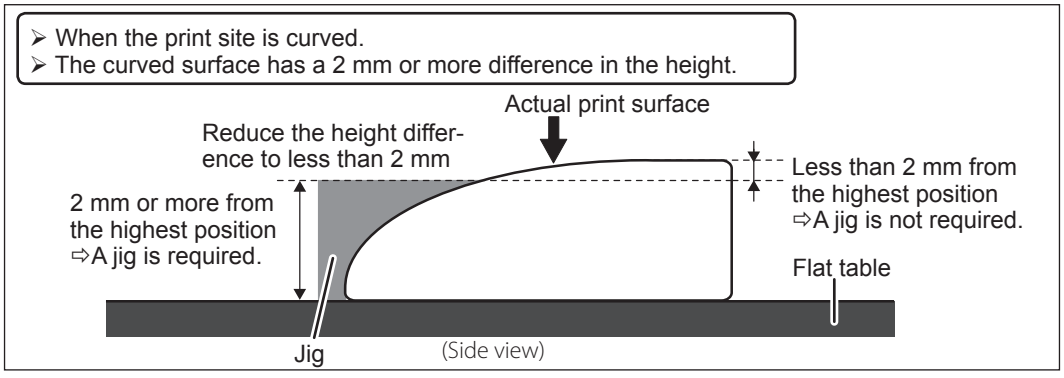
Example ①

Even if the actual print area is flat, if the print object (media) has a 2mm or more unevenness, a jig needs to be used. Cover the 2 mm or lower area than the actual print surface with a jig so that the height difference will be less than 2 mm. There is no need to use a jig for the areas where the height difference is less than 2 mm.


➢ The actual print area is flat.
➢ The surface of the print object (media) has a 2 mm or more unevenness.
Actual print surface
Less than 2 mm from the highest position ⇨A jig is not required.
2 mm or more from the highest position ⇨A jig is required.
Flat table
Jig
(Side view)

Example ②

When you make a print on a curved surface, you need to use a jig to reduce the height difference of the print object (media) to less than 2 mm.


➢ When the print site is curved.
➢ The curved surface has a 2 mm or more difference in the height.
Actual print surface
Reduce the height difference to less than 2 mm
Less than 2 mm from the highest position ⇨A jig is not required.
2 mm or more from the highest position ⇨A jig is required.
Flat table
Jig
(Side view)

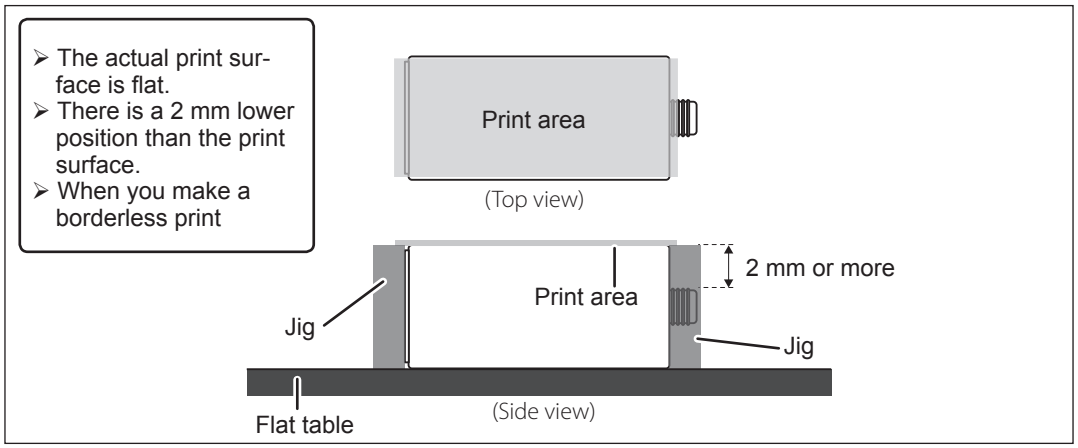
* There are conditions in the height settings when the print object (media) surface has a height difference. For more information, refer to p. 37 "Height Settings When the Print Surface is Uneven".

When you make a borderless print on a print object (media) with a 2 mm or more height difference

When you make a borderless print on a print object (media) with a 2 mm or more height difference, a jig according to the print area is required.
To make a borderless print, you need to specify a larger print area than the print object (media). In other words, ink is also ejected to the area outside the print object (media), and the UV lamp light is exposed to the area. Therefore, to prevent ink mist and reflection of the UV lamp light in the area outside the print object (media), a jig according to the print area is required.

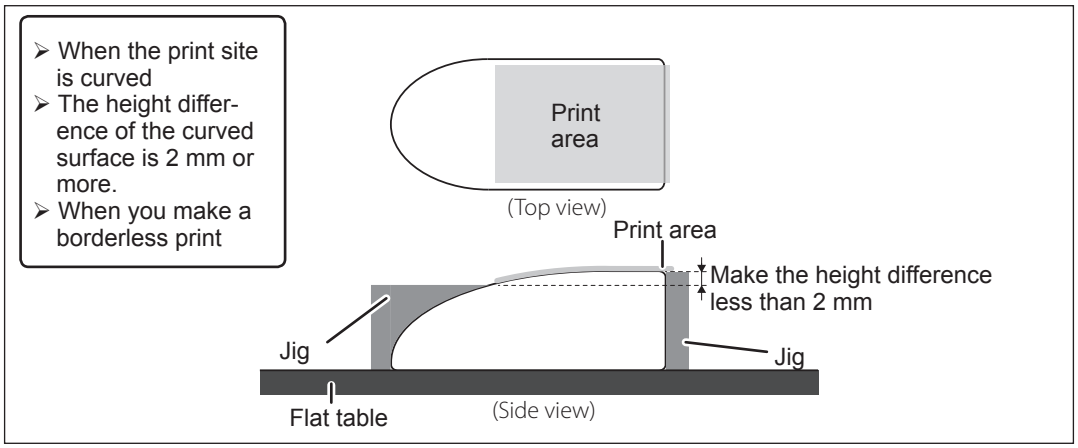
Example ①

When you specify the print area as shown in the figure below, you need to use a jig which makes the height difference between the print area outside the print object (media) and the actual print surface less than 2 mm. If the print object (media) has the shape with a 2 mm or more unevenness as shown in the figure below, you need to use a jig which takes into consideration 2 mm or more lower levels. (See Example ① in the previous page.)



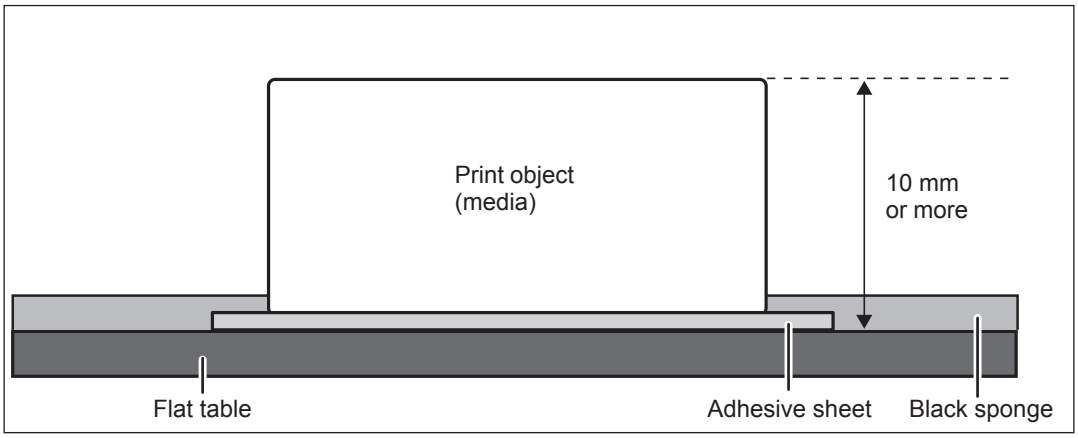
Example ②

When you specify the print area as shown below to the print object (media) with a curved surface, you need to use a jig which makes the surface height difference (see Example ② in the previous page) less than 2 mm and makes the height difference between the print area outside the print object (media) and the actual print surface less than 2 mm.

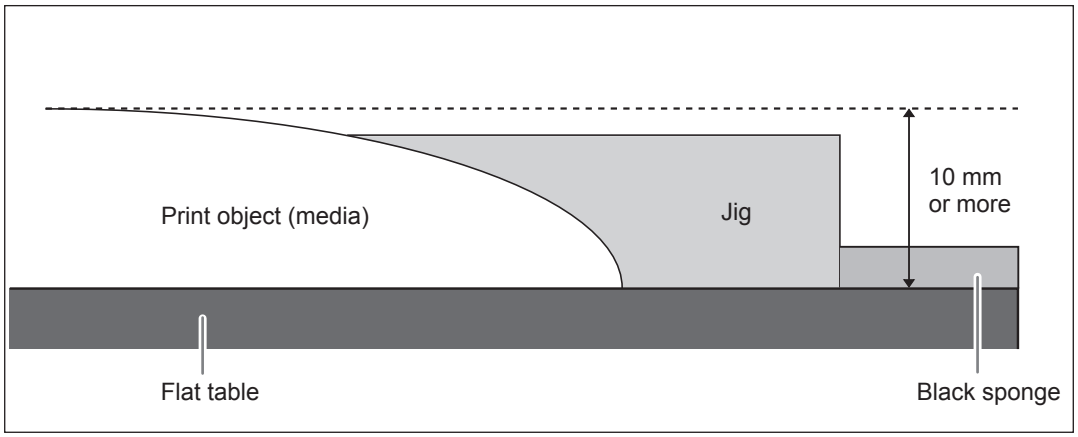

➢ When the print site is curved
➢ The height difference of the curved surface is 2 mm or more.
➢ When you make a borderless print
Print area
(Top view)
Print area
Make the height difference less than 2 mm
Jig
Jig
Flat table
(Side view)

4. Cover the margin areas of the flat table with black sponge when you make a print on a 3D object with a 10 mm or more height.

If the distance between the highest position of the print object (media) and the flat table surface is 10 mm or more, the UV lamp light is likely to be reflected. Cover all the margin areas of the flat table with black sponge when you make a print on a 3D object with a 10 mm or more height. Cover the adhesive sheet with black sponge as well if it is out of the print object (media).



When the height from the flat table is 10 mm or more and the flat table has margin areas even if a jig is used, cover the flat table surface with black sponge.



Fully Utilizing Preset Feature

Saving Current Media Setup with a Different Name

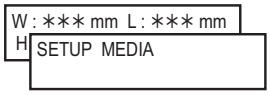
Procedure

1. **Set up the media (height position, print area) and make sure SET UP is lit.**
2. **Press MENU.**
3.

Press ► ▼ in this order to display the figure on the left.
Press ►.
4.

Press ▲ ▼ to select among NAME1 through NAME8.
Press ENTER to accept.
The current "height position of media" and "print area setting" are saved.
5.

Press ▲ ▼ to enter a character.
When you have decided on a character, press ►.
The characters you can enter are "A" through "Z," "0" through "9," and the "-" character. You can enter up to 15 characters, including spaces.
6.

Press ◄ ► to enter the next character.
Enter the following characters in the same way.
When entries are completed, press ENTER to accept.
7. 

Press MENU ◄ in this order to return to the original screen.

Description

The following settings configured in media setup can be saved as up to a maximum of eight different types of presets.

- Height position of media
  - ☞ P. 13, "Set height position of media (automatic)"; P. 14, "Set height position of media (manual)"
- Print area (including print-start position)
  - ☞ P. 16, "Specify the print area directly"; P. 17, "Specify the Print Area from the Print Center Position"

You can assign a name to each preset. Using media names for these presets may aid recognition. These presets eliminate the need to perform the setting when you are using media with the same shape. You can also use presets and change just the print area, leaving the height setting unchanged.

☞ P. 33, "Load a Preset and Print/Fine-Tune and Print"

Load a Preset and Print/Fine-Tune and Print

Procedure

❶ **Press** (MENU).

❷

MENU ◀◆▶ PRESET ▶	**Press** (►) **twice.**

❸

LOAD ◀◆▶ NAME1 ↵	**Press** (▲) (▼) **to select the name of the preset you want to load.** **Press** (ENTER) **to accept.**
SETUP MEDIA	The screen shown in the figure appears. (SET UP) goes dark.

❹ **Open the front cover and secure the media in place.**

☞ P. 11, “How to Secure the Media”

❺ **Press** (SET UP).

❻

HEIGHT : ✳✳✳ . ✳ mm ▶ ↵	The loaded preset setting is displayed. To change the height setting of the media **Set height position of media.** ☞ P. 13, "Set height position of media (automatic)"; P. 14, "Set height position of media (manual)" When choosing not to change the height setting of the media **Press** (ENTER).

❼

PRINT POS. TYPE ◀▶ CENTER ↵	The loaded preset setting is displayed. To change the setting of the print area **Set the print area.** ☞ P. 15, "Choosing How to Specify the Print Area"; P. 16, “Specify the print area directly”; P. 17, "Specifying the Print Area from the Print Center Position" **When the setup is completed, proceed to ❿.** When choosing not to change the setting of the print area **Press** (ENTER).

❽

SCAN : ✳✳✳ . ✳ mm FEED : ✳✳✳ . ✳ mm ↵	**Press** (ENTER).

❾

WIDTH : ✳✳✳ . ✳ mm LENGTH : ✳✳✳ . ✳ mm ↵	**Press** (ENTER).

⑩ W : ✱✱✱ mm L : ✱✱✱ mm
H : ✱✱✱ . ✱ mm ↵

When the screen shown on the left appears, you can start printing.
Start printing.
☞ P. 21, "Start Printing"

Description

You can load a saved media preset setting and use it to print on media having the same size or print after making small changes in the setting. Select any one of eight types of presets (when no names have been assigned, select from among NAME1 through NAME8) or DEFAULT (DEFAULT is the factory defaults for each setting).

Checking the Print Area (Preview Feature)

Procedure

1 **Specify the print area.**

☞ P. 16, “Specify the print area directly”, P. 17, “Specifying the Print Area from the Print Center Position”

2 **Press** FUNCTION **.**

3

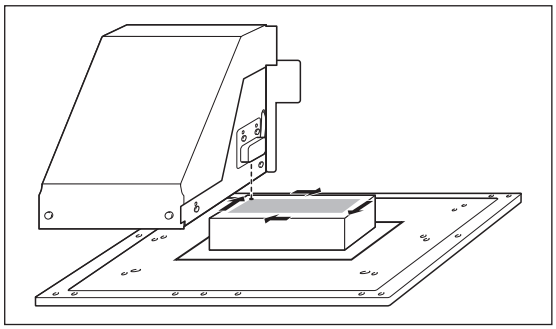
FUNCTION ◀▲▼
PRINT AREA ▶

Press ▼ **to display the figure on the left.**
Press ► **.**

4

PRINT AREA ◀▲▼
PREVIEW ↵

Press ENTER **.**
The laser pointer displays the print area that has been set.



5

W : ✱✱✱ mm L : ✱✱✱ mm
H : ✱✱✱ . ✱ mm ↵

Press FUNCTION **to return to the original screen.**

Description

This feature lets you check the set print area. You can check whether or not the print area that you intend is set before you start printing.

You can fine tune the print area that is set

Procedure

1 **Specify the print area.**

☞ P. 16, “Specify the print area directly”, P. 17, “Specifying the Print Area from the Print Center Position”

2 **Press (FUNCTION).**

3

Press (▼) to display the figure on the left.
Press (►), and then (▼).

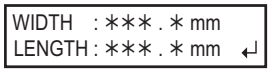
4

Press (ENTER).
Move the laser pointer to the print-start position.

5

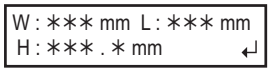
Press (▲) (▼) (◄) (►), and refine the adjustment of the print-start position (lower right of print area).
Press (ENTER) to accept.
Move the laser pointer to the print-end position.

6



Press (▲) (▼) (◄) (►), and refine the adjustment of the print-end position (print area's upper left).
Press (ENTER) to accept.

7



Press (FUNCTION) to return to the original screen.

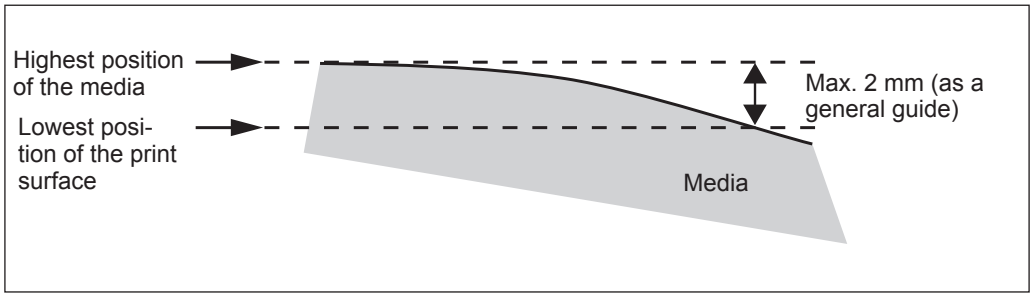
Description

This feature lets you make fine adjustments of the specified print area. If the specified print area is slightly displaced from the actual print area on the media, you can adjust the print start position and end position respectively.

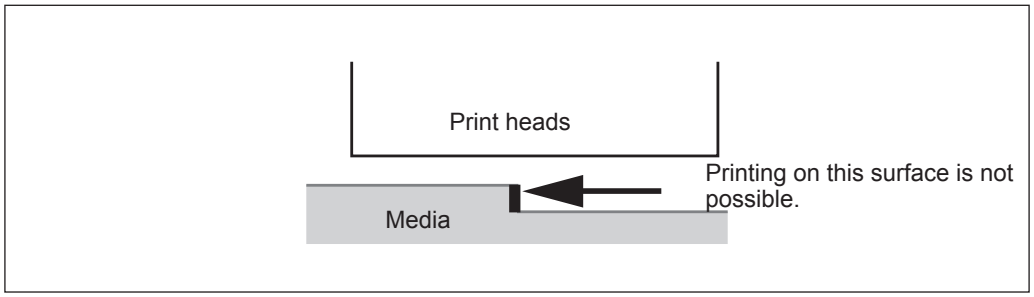
Height Settings When the Print Surface is Uneven

This machine can also print on uneven surfaces. However, remember the following points for the height setting.

- **Automatically set the height for the highest position of the media.**
  ☞ P. 13, “Set height position of media (automatic)”
- **Gap between "highest position of the media" and "lowest position of the print surface" should be 2 mm or less (as a general guide).**
  Print quality at the lower position degrades as the height gap widens.



- **Printing on a surface that is perpendicular to print heads is not possible.**



Even when the media comes into contact with the media gap sensor during printing, automatic adjustment is performed to continue printing.

Procedure

1. **Press (MENU).**

2.

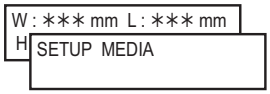
Press (▼) several times until the screen shown on the left appears.
Press (►).

3.

Press (▼) several times until the screen shown on the left appears.
Press (►).

4.

Press (▲) (▼) to select "RE-ADJ".
Press (ENTER) to accept

5. 

Press (MENU) (◄) in this order to return to the original screen.

Description

This function is effective for printing on media that cannot be redone. This setting allows the height to be readjusted automatically to continue printing even when the media moves out of position or lifts up and comes into contact with the media gap sensor during printing.*
However, the change of the height settings may cause lower printing image quality. (During automatic readjustment, the media gap sensor will come into contact with the media as well.) Hence, proper printing requires properly securing the media before printing to keep it from moving out of position or lifting up.

☞ P. 11, "How to Secure the Media"; P. 13, "Set height position of media (automatic)"; P. 14,"Set height position of media (manual)"; P. 16, "Specify the print area directly".

Even if "RE-ADJ" is selected, printing and setup will be canceled in the following cases.

- In automatic readjustment, the flat table descends more than 10 mm.
- In automatic readjustment, even if the flat table has moved to the bottom, the media comes into contact with the media gap sensor.

If "CANCEL" is selected, printing and setup will be canceled without performing automatic readjustment. **

* For information on operation after printing is finished, refer to "[READJUST TABLE HEIGHT]" on P. 82.
** For information on operation after printing is canceled, refer to "[CANCELED FOR TABLE HEIGHT]" on P. 83.

Default Settings

[CLEARANCE MODE]: CANCEL

Preventing Soiling of the Media and Dot Drop-out

Procedure

1. **Press (MENU).**

2.

Press (▼) several times until the screen shown on the left appears.
Press (►).

3.

Press (▼) several times until the screen shown on the left appears.
Press (►).

4.

Press (▲) (▼) to select an item.
Page
Automatic cleaning is performed each time prior to the start of printing.
5 to 990 minutes
Automatic cleaning is performed when the cumulative printing time reaches the value you set here. The color may become uneven because the printing is paused.
NONE
Automatic cleaning is not performed.
Press (ENTER) to accept.

5.

Press (MENU) (◄) in this order to return to the original screen.

Description

In the following cases, ink tends to collect on the surface of the heads. Under some conditions, this ink may be transferred to the media or cause dot drop-out.

- When you use media prone to a buildup of static charge
- When the ambient temperature is low
- When the variation in unevenness on the print surface is high (There is a limit to the unevenness of the print surface.)

☞ P. 37, "Height Settings When the Print Surface is Uneven"

Selecting "PAGE" or a value from "5 to 990 minutes", the ink buildup is removed before or during printing while printing is performed. Using "PAGE" or a value from "5 to 990 minutes results in longer printing times.

Default Settings

[PERIODIC CL.]: NONE

Reducing Print Quality Degradation from Ink Mist (Ink Spatter)

Procedure

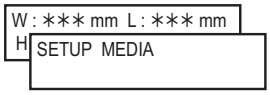
1. **Press (MENU).**

2.

Press (▼) several times until the screen shown on the left appears.
Press (►) three times.

3.

Press (▲) (▼) to select an item.
Press (ENTER) to accept.

4. 

Press (MENU) (◄) in this order to return to the original screen.

Description

Under some printing conditions (such as low temperature or when a static charge is likely), a greater amount of ink mist (ink spatter during printing) may be produced and adversely affect the print quality. In these cases, you may be able to alleviate the symptom by lowering the rotation of the carriage fan. Whether the symptom can be alleviated or not depends on the temperature and media type. Be sure to check the print status as you adjust the setting.

However, the purpose of the carriage fan is to prevent ink buildup on the surface of print heads. Lowering its rotation will lead to more dot drop-outs. This means if you set it to "Middle", "Low", or "Off", you should perform normal cleaning more frequently. The "PERIODIC CL." setting is also effective against dot drop-outs .

☞ P. 19, "Printing Test and Normal Cleaning"; P. 39, "Preventing Soiling of the Media and Dot Drop-out"

* Only the carriage fan's setting can be changed. The rear fan setting cannot be changed.

Default Settings

[CARRIAGE FAN.]: HIGH

Re-curing Ink

POINT!

This feature cannot be used if media setup has been canceled. (When the media is being set up, SET UP flashes. If you hold SET UP for one second or longer, the setup will be canceled. When canceled, SET UP turns off.)

Procedure

1. **Press FUNCTION.**

2.

Press ▼ several times until the screen shown on the left appears.
Press ENTER.
The print heads move, and the print area is illuminated by the UV-LED lamp.

Description

When the ink is not completely cured after printing is complete, cure the ink by illuminating it once again with the UV-LED lamp. A characteristic of UV ink is that it cures quickly when exposed to the UV lamp, but curing may be difficult for materials like cloth that absorb ink. The effect depends on the media material, but this function may alleviate the symptom.

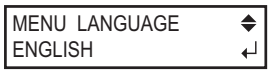
Fully Utilizing the Administrative Features

Setting the Menu Language and Units of Measurement

This feature sets the language and units of measurement displayed on the display screen of the operation panel.

Procedure

1. **Hold down (MENU) and switch on the sub power.**

2. 

   Press (▲) (▼) to select the display (menu) language.
   Press (ENTER) to accept.

3.

   Press (▲) (▼) to select the measurement unit for length.
   Press (ENTER) to accept.

4.

   Press (▲) (▼) to select the measurement unit for temperature.
   Press (ENTER) to accept.

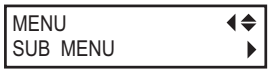
Default Settings

[MENU LANGUAGE]: ENGLISH
[LENGTH UNIT]: mm
[TEMP. UNIT]: °C

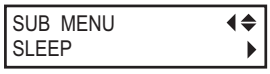
Setting the Interval until Activation of the Sleep Mode (Power Saving Function)

Procedure

1. **Press (MENU).**

2. 

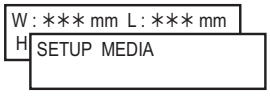
   Press (▼) several times until the screen shown on the left appears.
   Press (►).

3. 

   Press (▲) several times until the screen shown on the left appears.
   Press (►) twice.

4.

   Press (▲) (▼) to select.
   Press (ENTER) to accept.

5. 

   Press (MENU) (◄) in this order to return to the original screen.

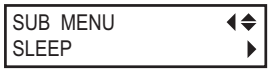
Default Setting

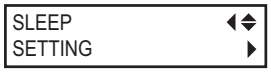
[INTERVAL]: 30min

Deactivating the Sleep Mode (Power Saving Function)

Procedure

1. **Press (MENU).**
2.

Press (▼) several times until the screen shown on the left appears.
Press (►).
3. 

Press (▲) several times until the screen shown on the left appears.
Press (►), and then (▼).
4. 

Press (►).
5.

Press (▲) (▼) to select "DISABLE".
Press (ENTER) to accept.
6.

Press (MENU) (◄) in this order to return to the original screen.

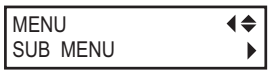
Default Setting

[SETTING]: ENABLE

Returning All Settings to Factory Defaults

This menu returns all settings to the same as their factory defaults. However, the settings for [LANGUAGE], [LENGTH UNIT], and [TEMP. UNIT] are not returned to the factory defaults.

Procedure

1. **Press (MENU).**
2. 

Press (▼) several times until the screen shown on the left appears.
Press (►).
3.

Press (▼) several times until the screen shown on the left appears.
Press (ENTER).

Determining What Happens When Ink Runs Out

This menu lets you change, according to your purpose, the operation that takes place when an ink cartridge is empty.

Procedure

1. **Press MENU.**

2.

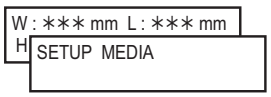
   Press ▼ several times until the screen shown on the left appears.
   Press ►.
   Press ▲ twice.

3.

   Press ► twice.

4.

   Press ▲ ▼ to select.
   STOP: Printing pauses immediately when a cartridge becomes empty.
   "CONT" (continue): Printing does not stop when a cartridge becomes empty. When a cartridge becomes empty, a warning beep sounds.
   Press ENTER to accept.

5. 

   Press MENU ◄ in this order to return to the original screen.

Description

When "STOP" is selected, printing pauses and so colors may be uneven. Ensure a sufficient amount of remaining ink before you begin printing.
When "CONT" is selected, printing does not stop even if ink runs out completely. To replace the cartridge, wait until printing ends or press PAUSE to pause printing.

Default Setting

[EMPTY MODE]: STOP

Viewing Information about the System of This Machine

Note: For information on how to set up a network, refer to "First Step Guide".

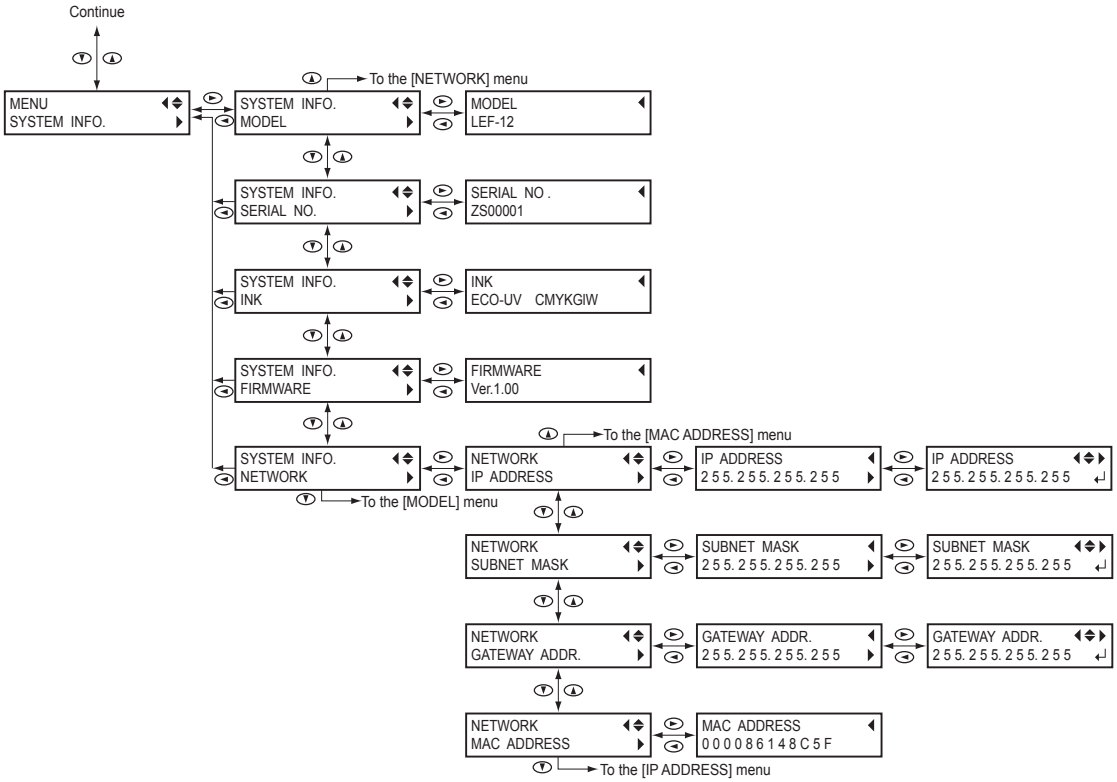
Procedure

1. **Press** (MENU).

2. MENU
   SYSTEM INFO. ▶

Press (▲) several times until the screen shown on the left appears.

You can check the following information.
[MODEL]: Model name
[SERIAL NO.]: Serial number
[INK]: Ink type
[FIRMWARE]: Firmware version
[Network]: Network configuration (IP address, etc.)



Chapter 3
Maintenance

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Introduction: About Maintenance

Automatic Maintenance Feature and Notes

This machine has a feature that automatically performs maintenance periodically. Please observe the following because operations, such as preventing the print heads from drying out are performed.

- **Always leave the main power on.**
- **Do not leave the front cover open for a long time.**
- **Return to the top menu after specifying settings in various menus.**

Keep Performing Maintenance

Please perform maintenance on a regular basis.

Please perform regular maintenance to keep the machine in a condition to produce the best quality printing.

☞ P. 52, “Maintenance that Should Be Performed Daily”

There is maintenance that you should perform periodically.

There is maintenance you should perform periodically to ensure consistent output.

☞ P. 56, "Periodic Cleaning Maintenance"

Switch the power on once every two weeks

Switch the sub power on once every two weeks. When you turn on the power, the machine automatically performs some operations such as those to keep the print heads from drying out. Allowing the machine to stand completely unused for a prolonged period may damage the print heads, so be sure to switch on the power to perform these automatic operations.

Keep at a Constant Temperature and Relative Humidity

Even when the machine is not in use, keep it at a temperature of 5 to 40°C (41 to 104°F) and a relative humidity of 20 to 80% RH (with no condensation). Not doing so may cause the machine to breakdown.

Alarm Feature

This feature reminds you to switch on the sub power once a month. When the machine remains unused for about a month, this screen appears and a warning beep sounds. If this screen appears, switch on the sub power. When maintenance operations finish, switch off the sub power.

This feature operates when the printer's main power is turned on. We recommend leaving on the main power to the printer even when the machine will remain unused for a prolonged period.

Important Note on Draining Ink

Although this machine has features for draining internal ink, it should never be used except in special cases. Allowing the machine to stand without ink for a prolonged period may damage the heads. Once ink has been filled, as a rule, the ink should never be drained.

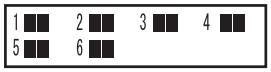
Checking for Remaining Ink

Procedure

1. **Press (MENU).**

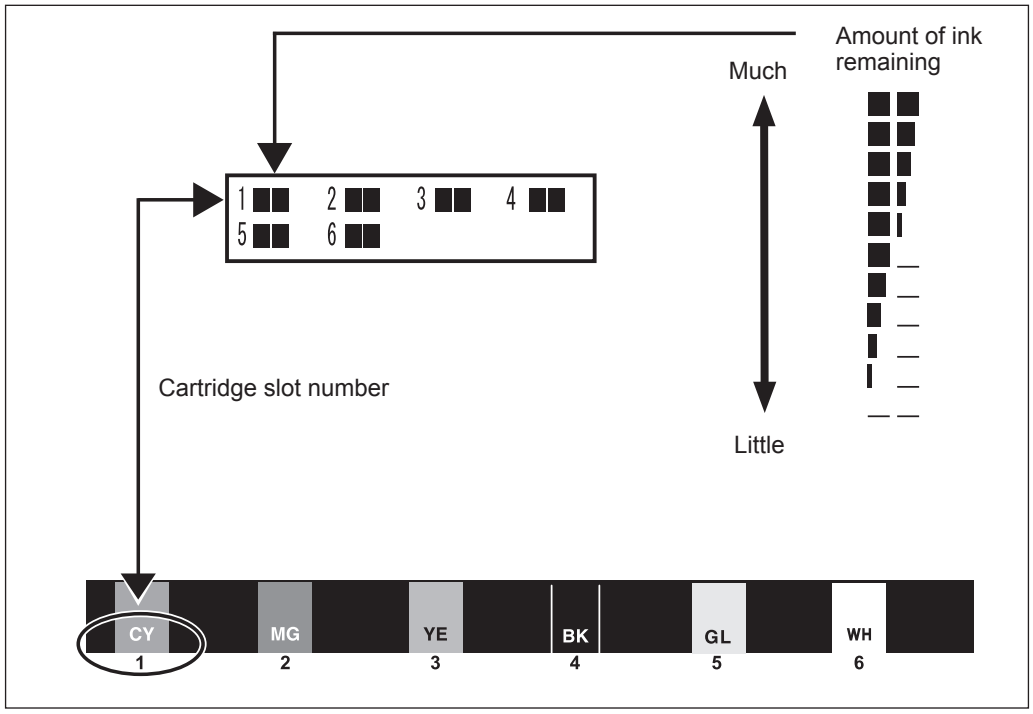
2.

Press (▲) several times until the screen shown on the left appears.
Press (►).



■ Indicates the amount of ink remaining. When there are more ■, the amount of ink remaining is larger.

* The displays shows approximately how much ink remains. It may differ somewhat from the actual amount remaining.



3.

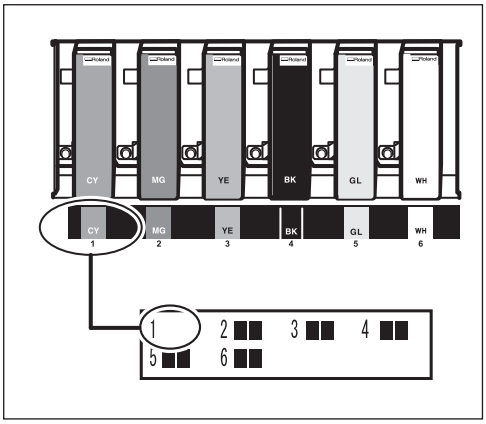
Press (MENU) (◄) in this order to return to the original screen.

How to Replace the Ink Cartridge

When ink runs out, a warning beep sounds and printing pauses (unless the default settings have been changed). Pull out the empty cartridge and insert a new one. After replacing the cartridge, close the ink cartridge cover and front cover. Printing resumes.

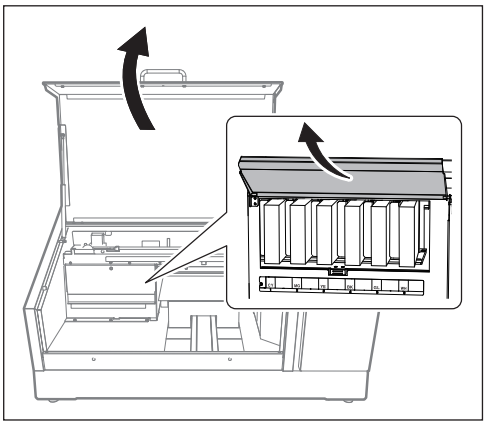
Procedure

1



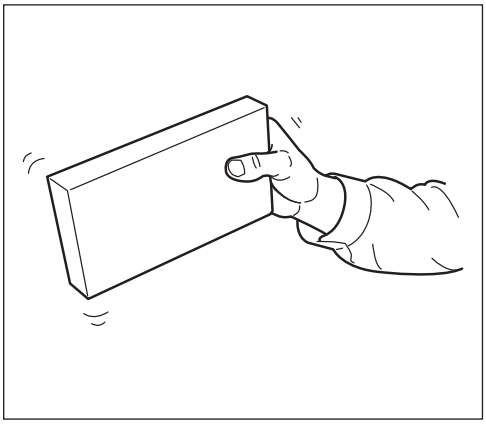
Check the number flashing on the screen.
The ink at the flashing cartridge slot number is running out.

2



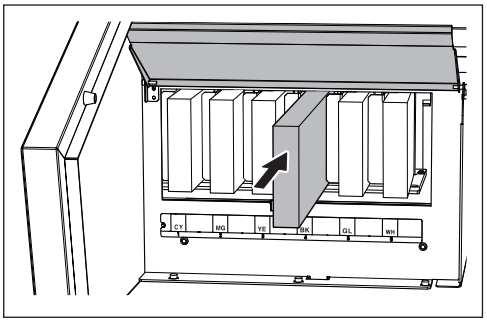
Open the front cover.
Open the ink cartridge cover.

3



Gently shake a new ink cartridge of the same type and same color prior to replacing.

❹

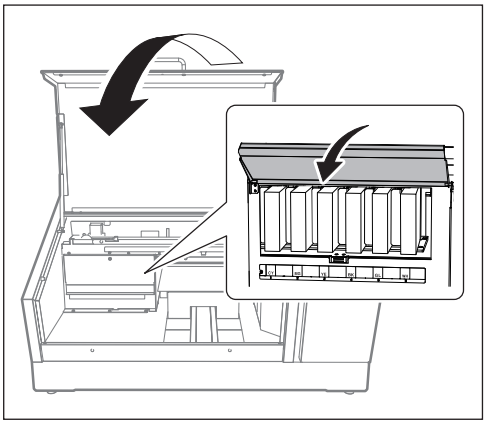


Pull out the empty ink cartridge and immediately insert the new one.

POINT!

- Keep the side with the arrow face up
- Insert and remove slowly, one at a time

❺



Close the ink cartridge cover.
Close the front cover.

IMPORTANT! **Important Notes on Replacing Cartridges**

- Make sure that the ink cartridge cover is always closed except when absolutely necessary, such as when you are replacing ink cartridges. The ink inside the cartridges will become hardened, and it may cause the printer to malfunction.
- Be sure to replace with an item of identical type.
- Never mix items of different types.
- Never allow the machine to stand with an ink cartridge removed. The print heads may become clogged.
- Never insert or remove a partially used ink cartridge with undue force.
- Never remove an ink cartridge suddenly while the printer is in operation.

⚠WARNING **Never store ink, cleaning fluid, or discharged fluid in any of the following locations.**

- Any location exposed to open flame
- Any location where high temperatures may occur
- Near bleach or any other such oxidizing agent or explosive material
- Any location within the reach of children

There is a risk of fire. Accidental ingestion by children may pose a health hazard.

Maintenance that Should Be Performed Daily

Maintenance of Ink Cartridges

Be sure to perform the following types of maintenance. The ingredients in the ink have a tendency to precipitate. Particularly, the white ink contains ingredients that precipitate easily, and deposits may harden and cause problems including printer malfunctions if left untouched for an extended period of time.

- **Shake the new ink cartridge gently before loading it.**
- **Temporarily remove only the white ink cartridge, shake it gently, and load it before starting operation for the day.**

Cleaning

⚠WARNING **Never use gasoline, alcohol, thinner, or any other flammable material.** Doing so may cause fire.

Wipe away any buildup of ink or grime that has adhered to the machine as part of daily cleaning. In particular, the flat table is likely to have a buildup of grime. Clean by wiping with a cloth moistened by neutral detergent diluted with water then wrung dry.

POINT!

- This machine is a precision device, and is sensitive to dust and dirt. Perform cleaning on a daily basis.
- Never attempt to oil or lubricate the machine.

About Care and Maintenance of the Print Heads

Care of the print heads is essential to ensure optimal printing at all times. There are daily care and periodic care.

Daily Care and Maintenance

Printing Tests and Normal cleaning

Be sure to perform a printing test before and after daily operations. Also, perform this maintenance during daily operations as needed.

☞ P. 19, “Printing Test and Normal Cleaning”

Periodic Care and Maintenance

☞ P. 56, "Periodic Cleaning Maintenance"

*** The print heads are components that wear out. Periodic replacement is required, with the frequency of replacement depending on use. Purchase them from your authorized Roland DG Corp. dealer.**

Disposing of Discharged Ink

CHECK DRAIN BOTTLE

The drain bottle collects discharged fluid. Dispose of collected material before the bottle becomes full. The message shown in the figure appears when a certain amount of discharged fluid has collected in the bottle. Follow the procedure below to discard the discharged fluid.

1. Empty the bottle by discarding the discharged fluid.

❶ CHECK / DRAIN BOTTLE

When the message shown in the figure appears, press (ENTER).

❷ **Press (MENU).**

❸ MENU ◀▲▼ / SUB MENU ▶

Press (▼) several times until the screen shown on the left appears.
Press (►), and then (▲).

❹ SUB MENU ◀▲▼ / MAINTENANCE ▶

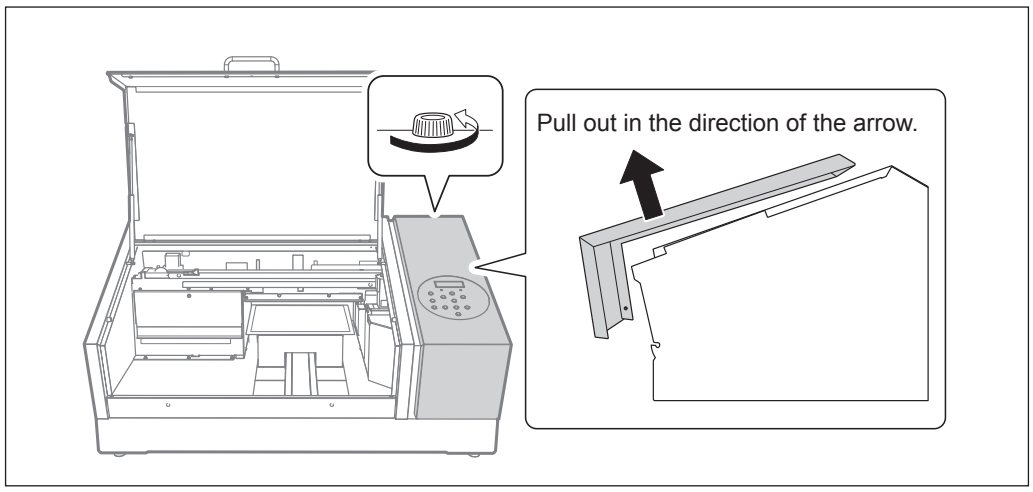
Press (►), and then (▲).

❺ MAINTENANCE ◀▲▼ / DRAIN BOTTLE ↵

Press (ENTER).

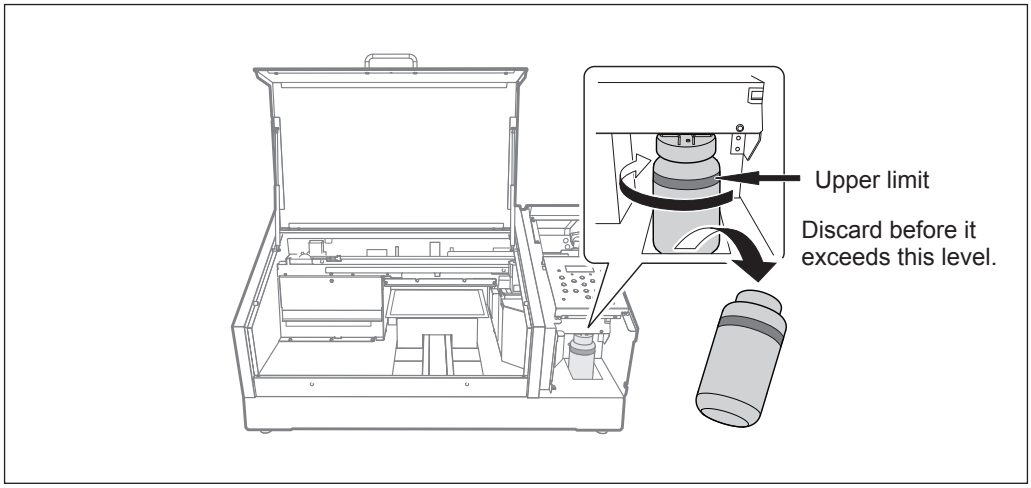
❻ OPEN PANEL ◀ / COVER

When the figure shown on the left appears, open the panel cover.



❼ EMPTY
DRAIN BOTTLE ↵

When the screen shown on the left appears, detach the bottle, and empty it to discard the discharged fluid.



⚠CAUTION **Before you detach the drain bottle, be sure to wait for the screen to display [EMPTY DRAIN BOTTLE].**
Failing to follow this procedure may cause discharged fluid to flow out of the tube and spill, soiling your hands or the floor.

⚠WARNING **Never place discharged fluid near open flame.**
Doing so may cause fire.

⚠CAUTION **To store discharged fluid temporarily, place it in the included drain bottle or in a durable, sealed container such as a metal can or polyethylene tank, and cap tightly.**
Any spillage or vapor leakage may cause fire, odor, or physical distress.

Do not store discharged liquids in a location where they are exposed to direct sunlight.
When temporarily storing discharged fluid in the included drain bottle, do not store in a location that is exposed to direct sunlight. The discharged fluid may harden, making the drain bottle unusable.

Dispose of discharged fluid properly, in accordance with the laws in effect in your locale.
Discharged fluid is flammable and contains toxic ingredients. Never attempt to incinerate discharged fluid or discard it with ordinary trash. Also, do not dispose of it in sewer systems, rivers, or streams. Doing so may have an adverse impact on the environment.

2. Attach the emptied drain bottle and reset the discharged-fluid count.

❶ EMPTY
DRAIN BOTTLE ↵

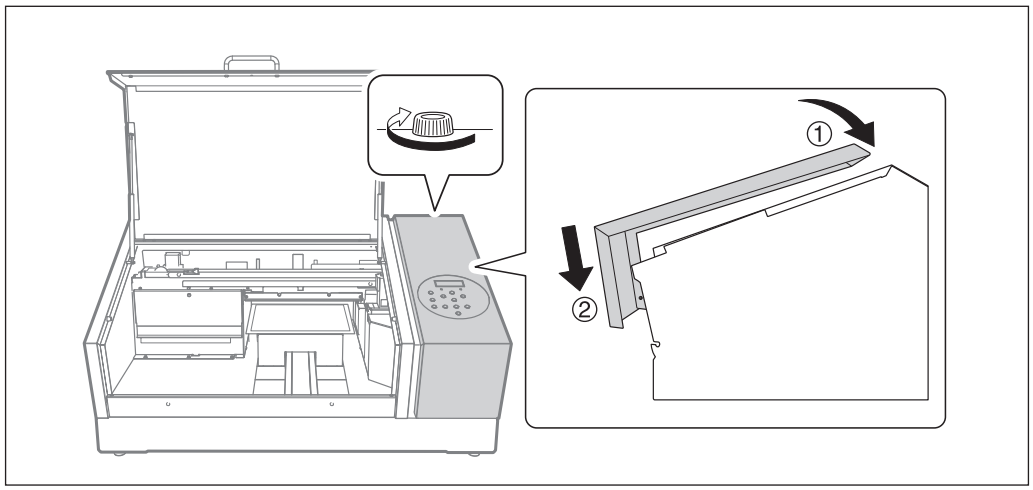
Re-attach the emptied drain bottle.
Press ENTER.

❷ RESET DRAIN
COUNTER ↵

Press ENTER.

❸ CLOSE PANEL
COVER

When the figure shown on the left appears, close the panel cover.



❹ W : ✱✱✱ mm L : ✱✱✱ mm
H SETUP MEDIA

Press MENU ◄ in this order to return to the original screen.

Periodic Cleaning Maintenance

About Each Cleaning Method

There are several cleaning menus on this machine. Perform cleaning periodically or as needed.

Normal cleaning	Perform normal cleaning when there is a nozzle drop-out in test prints. Be sure to do this in the following cases. ➢ **Before daily operations** ➢ **After daily operations** Also, perform normal cleaning during daily operations as needed. ☞ P. 19, "Printing Test and Normal Cleaning"
Medium cleaning **Powerful cleaning**	If you cannot fix nozzle drop-out with normal cleaning, try medium cleaning. If medium cleaning does not fix the problem, perform powerful cleaning. ☞ P. 56, "Medium and Powerful Cleaning"
Manual cleaning	Perform every day when the machine's interior tends to be grimy due to the scattering of ink mist (this problem tends to occur when printing with the some distance between the print head and the print surface). Even if it does not become very grimy, clean periodically as needed based on your usage (at least, once a month). ☞ P. 58, "Manual Cleaning"

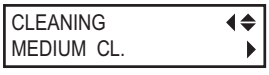
Medium and Powerful Cleaning

When normal cleaning (P. 19, "Printing Test and Normal Cleaning") does not correct dot drop-out, perform the more powerful cleaning, a "medium cleaning", two or three times. If the condition is not improved, try the even more powerful "powerful cleaning".

> **POINT!**
> Medium cleaning consumes more ink than normal cleaning. Powerful cleaning consumes more ink than medium cleaning. Because the print heads are prone to damage if cleaned too frequently, do not perform cleaning more than necessary.

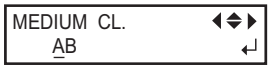
Procedure

1. **Press** FUNCTION.
2.

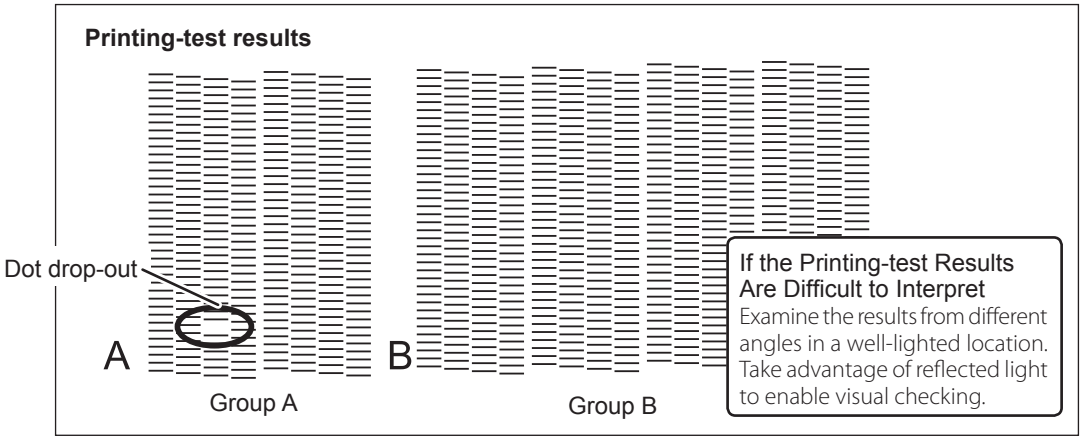
Press ►, and then ▼.
3. 

"MEDIUM CL."
Press ►.
"POWERFUL CL."
Press ▼, and then ►.

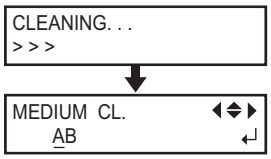
❹



Press ◄ ► to choose the group of heads that is not to be cleaned.
Press ▲ ▼ to get rid of the group display.
Repeat this procedure to display the groups of only the heads that require cleaning.


Printing-test results
Dot drop-out
A
B
Group A
Group B
If the Printing-test Results Are Difficult to Interpret
Examine the results from different angles in a well-lighted location. Take advantage of reflected light to enable visual checking.

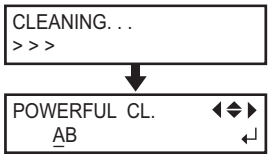
❺



"MEDIUM CL."
The screen shown in the figure appears, and then cleaning starts.

When it finishes, the screen shown in the figure appears again.

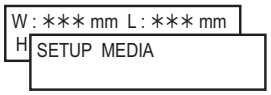
"POWERFUL CL."
Check the drain bottle.
If the amount of discharged fluid is near the upper-limit line, then remove the bottle, discard the collected fluid, and reattach the bottle.
Press ENTER.



The screen shown in the figure appears, and then cleaning starts.

When it finishes, the screen shown in the figure appears again.

❻



Press FUNCTION to return to the original screen.

When Powerful Cleaning Is Not Effective

When dot drop-out does not improve after cleaning several times, perform "Manual Cleaning of Print Heads". Such cleaning can be effective when carried out periodically, according to the frequency of use.

☞ P. 58, "Manual Cleaning"

Manual Cleaning

When the Manual Cleaning Becomes Necessary

When there is a lot of scattered ink mist and the inside of the machine is soiled

Perform every day when frequently printing with the print head at a distance from the print surface or when ink is emitted to locations that protrude from the print surface. If the scattered ink mist is allowed to harden, it may cause malfunctions.

Perform once a month or more

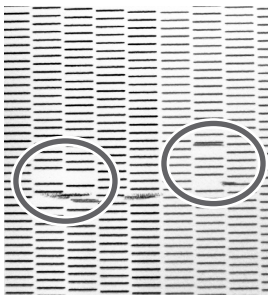
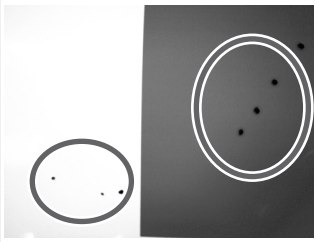
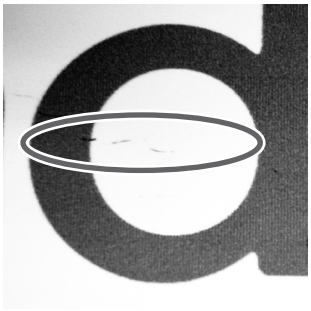
To maintain stable output conditions at all times, perform manual cleaning more than once a month.

We recommend manual cleaning when any of the following symptoms occurs

If the following symptoms occur and you are not able to fix them with automatic cleaning features, such as normal cleaning, perform manual cleaning.

Wiper replacement may also be effective in improving these symptoms.

☞ P. 66, "Replacing the Wiper"

Dot drop-out	Ink drips	Dragging dirt
		
Flaws in the dot pattern caused by dust on the print heads.	Ink pools in dust or dirt adhered to the print heads, and drips onto the media.	The phenomenon where dirt or dust accumulates on the print head.

- The frequency with which manual cleaning should be performed depends on the machine's use. For information about frequency of cleaning needed for your conditions of use, contact your authorized Roland DG Corp. dealer.
- When the cleaning stick and cleaning fluid used for manual cleaning runs out, purchase them from your authorized Roland DG Corp. dealer.
- The print heads are components that wear out. Periodic replacement is required, with the frequency of replacement depending on use. Purchase them from your authorized Roland DG Corp. dealer .

IMPORTANT!

Important Notes on This Procedure

- For manual cleaning, the cleaning fluid included, the cleaning stick, and a commercially available glass cleaner are necessary. Please prepare them in advance.
- Before performing this operation, remove any media.
- To prevent the heads from drying out, finish this procedure in 10 minutes or less. A warning beep sounds after 10 minutes.
- Never use any implement other than the included cleaning stick. Cotton swabs or other lint-producing items may damage the heads. If you use up the cleaning stick, purchase a new one from your authorized Roland DG Corp. dealer.
- Use one cleaning stick per cleaning session. Reusing cleaning sticks may reduce print quality.
- Do not put a cleaning stick that has been used for cleaning into the cleaning fluid. It may deteriorate the fluid.
- Never rub the nozzle surface of the heads.
- Stroke the sponges very gently, applying as little pressure as possible. Never rub, scrape, or crush them.

When a warning beep sounds during cleaning

A warning beep sounds 10 minutes after operation begins. Stop work and close the front cover. And then, press ENTER to quit the manual cleaning menu. After that, restart the procedure from the beginning.

⚠CAUTION **Be sure to perform operations as specified in the instructions above, and never touch any area not specified in the instructions.**
Sudden movement of the machine may cause injury.

1. Change to the print-head manual-cleaning mode.

❶ **Remove any media. Close the front cover.**

❷ **Press MENU.**

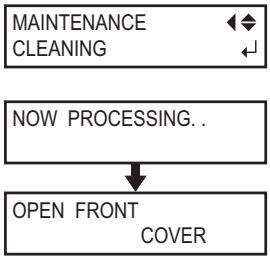
❸

Press ▼ several times until the screen shown on the left appears.
Press ►, and then ▲.

❹

Press ►.

❺

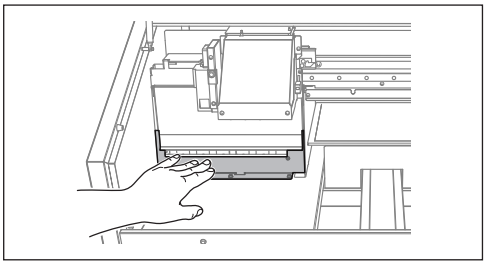


Press ENTER **.**

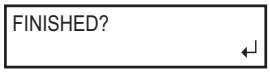
The print-head carriage, and then the screen shown in the figure appears.

❻ **Open the front cover.**

❼



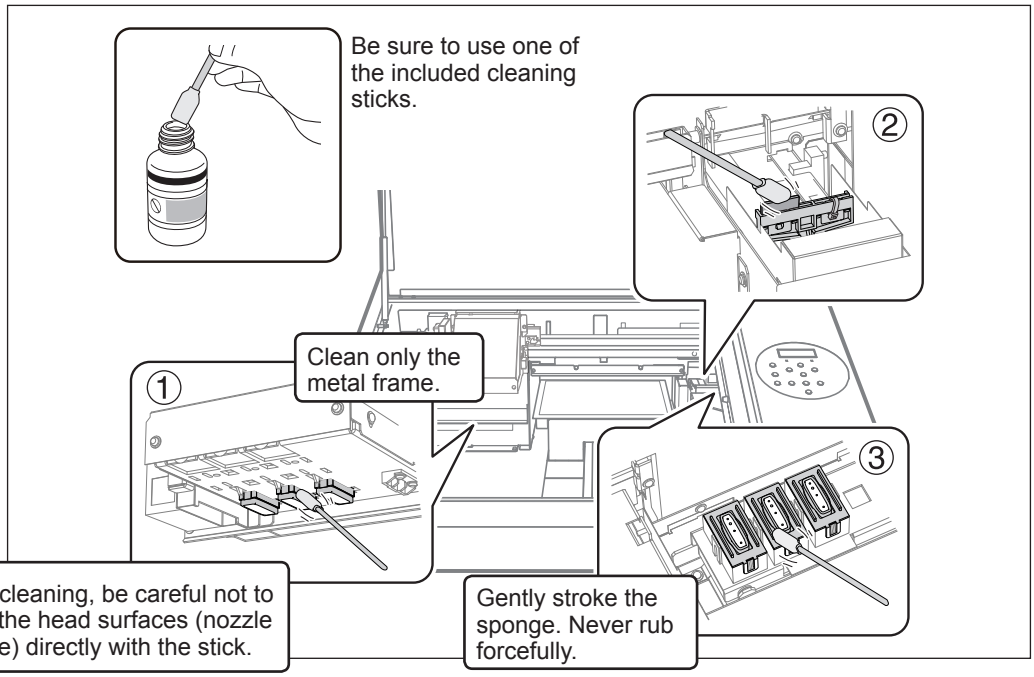
Touch the location shown in the figure (under the ink cartridge cover) to discharge any static electricity.



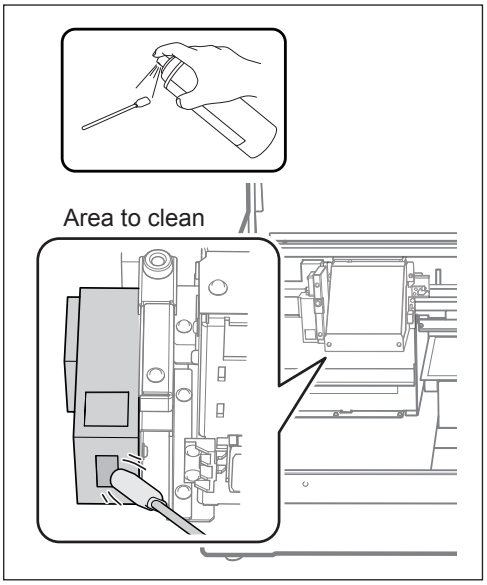
Preparations are complete when this screen appears.

2. Clean using the cleaning stick.

❶ **Moisten the cleaning stick with the cleaning liquid.**
Clean in the sequence shown in the figure below.
Be especially careful to clean away any fibrous dust (lint).


Be sure to use one of the included cleaning sticks.
②
Clean only the metal frame.
①
③
While cleaning, be careful not to touch the head surfaces (nozzle surface) directly with the stick.
Gently stroke the sponge. Never rub forcefully.

❷



Apply commercially available glass cleaner to the cleaning stick.

Use a new cleaning stick.

Clean the locations shown in the figure.

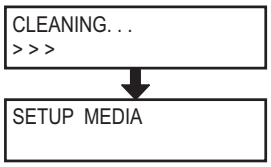
Be especially careful to clean away any fibrous dust (lint).

While cleaning, be careful not to touch the head surfaces (nozzle surface) directly with the stick.

3. Quit manual cleaning mode.

❶ **Close the front cover.**

❷ **Press** ENTER **.**



The print-head carriage moves to the right side of the machine.

After quitting the manual cleaning mode, the screen returns to the figure as shown..

4. Perform a printing test to verify the results of the procedure.

Perform a printing test to check the results.

Perform cleaning using the machine's cleaning feature several times when necessary.

☞ P. 19, "Printing Test and Normal Cleaning"

When Dot Drop-out Cannot be Cleared Up

When Dot Drop-out of White or Gloss Ink Cannot be Cleared Up

In this operation, all white and gloss inks within the printer are discharged, and the interior is cleaned. Ink is refilled after cleaning. This operation requires two SOL INK cleaning cartridges.
White ink tends to settle, and may harden if allowed to stand for a lengthy time. Therefore, abnormal ink emission including dot drop-out tends to occur more frequently than with other inks, even when using the cleaning function (Normal, Medium, or Powerful) or manual cleaning.

* If you want to perform maintenance on inks other than white or gloss ink, see P. 63, "Cleaning All Print Heads".

Important Notes on This Procedure

- **A large amount of ink will be discharged during this operation. Perform this operation when all procedures such as "Normal", "Medium", "Powerful", and "Manual" cleaning, and measures to improve ink emission flaws (such as dot drop-out) do not improve the symptoms.**
  ☞ P. 52, "Maintenance that Should Be Performed Daily"; P. 56, "Medium and Powerful Cleaning"; P. 58, "Manual Cleaning"
- **Be sure to use SOL INK cleaning cartridges. Use of any other type may result in breakdown.**
- **According to the procedure, fill with ink as soon as possible. Allowing the machine to stand without ink may damage the print heads.**

Procedure

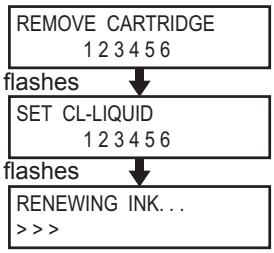
❶ **Press** (MENU).

❷

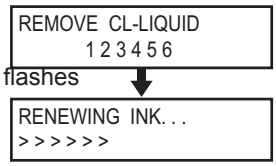
Press (▲) **to display the left figure.**
Press (ENTER).

❸

Discard the discharged fluid and attach the emptied bottle.
Press (ENTER).

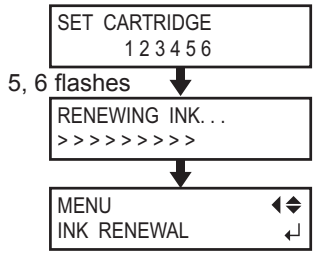
❹


① Open the front cover and the ink cartridge cover.
② Remove the ink cartridges from slots 5 and 6.
③ Insert SOL INK cleaning cartridges into slots 5 and 6.

❺


When the screen shown on the left appears, remove the SOL INK cartridges from slots 5 and 6.
Carry out steps ❹ and ❺ as many times as indicated on the display screen.

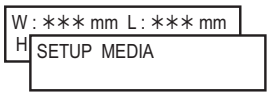
❻



When the screen shown on the left appears, insert an ink cartridge in slots 5 and 6.

❼ **Close the ink cartridge cover and the front cover.**

❽



Press (MENU) (◄) in this order to return to the original screen.

Cleaning All Print Heads

In this operation, all inks within the printer are discharged, and the interior is cleaned. Ink is refilled after cleaning.

This operation requires six unused SOL INK cleaning cartridges (four for cleaning and two for refilling ink). Have these on hand before you start.

* The effect on white ink and gloss ink is the same as P. 62 "When Dot Drop-out of White or Gloss Ink Cannot be Cleared Up". If you want to perform maintenance only on white and gloss ink, see P. 62.

Important Notes on This Procedure

- **All inks are discharged in this operation. Perform this operation when all procedures such as "Normal", "Medium", "Powerful", and "Manual" cleaning, and measures to improve ink emission flaws (such as dot drop-out) do not improve the symptoms.**
  ☞ P. 52, “Maintenance that Should Be Performed Daily”; P. 56, “Medium and Powerful Cleaning”; P. 58, “Manual Cleaning”
- **Be sure to use SOL INK cleaning cartridges. Use of any other type may result in breakdown.**
- **When the cleaning ends, fill with ink as soon as possible. Allowing the machine to stand without ink may damage the print heads.**

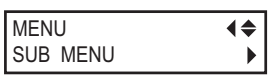
Procedure

❶ **Discharge ink.**

Perform operations in P. 53, *1.*- ❷ "Disposing of Discharged Ink" and the following procedures before discharging ink. The following operations will discharge large amounts of fluid. Empty the drain bottle, or the discharged fluid may overflow.

❷ **Press (MENU).**

❸



Press (▼) several times until the screen shown on the left appears.
Press (►).

❹

Press several times until the screen shown on the ▲ left appears.
Press ► ▲ in this order.

❺

Press ENTER.

❻

Make sure the cleaning fluid is ready.
Press ENTER.

❼

Make sure the drain bottle is empty, and then press ENTER.
If it is not empty, redo from Step ❶.
Be sure to discard the discharged ink.

❽ **Thereafter, follow the on-screen instructions to carry out the operations.**
After cleaning has finished, the sub power is automatically switched off.

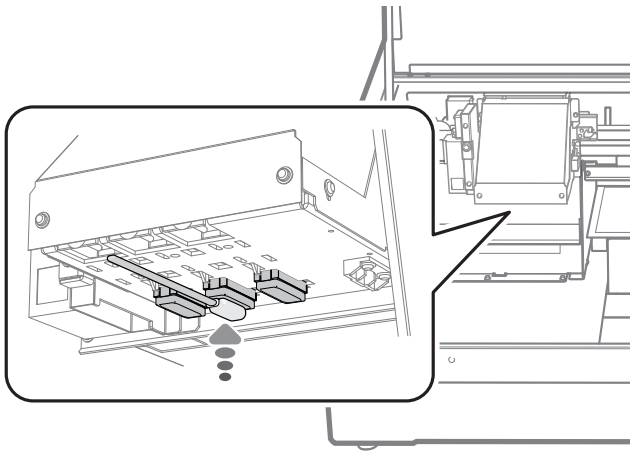
❾ **Start filling ink.**
See "First Step Guide" and promptly fill with ink. When filling with ink, you use (two) SOL INK cleaning cartridges again.

Cleaning of the head surface as an emergency measure

When dot drop-out and/or dot deflection is not improved even if cleaning is performed several times, you can clean the head surface as an emergency measure. Since the head surface (nozzle surface) is an extremely delicate mechanism, make sure to perform the operation carefully and deliberately. This operation is an emergency measure. It may damage defect-free parts depending on the symptoms, worsening the symptoms. If you have any questions, contact your authorized Roland DG Corp. dealer.

Procedure

1. **Perform Step *1.* on P. 59, "Manual Cleaning".**
2. **Apply a large amount of cleaning solution to the cleaning stick.**
3. **Softly press the cleaning stick to the head surface (nozzle surface).**
   Press it gently and softly so that the head nozzle is permeated with the cleaning fluid. Never rub the stick on the surface or press it forcibly.



4. **Perform Steps *3.* and *4.* on P. 61, "Manual Cleaning".**

Replacing Consumable Parts

Replacing the Wiper

The wipers are components that you use when cleaning the print heads. When the screen displays a message like the one shown, it means the item needs to be replaced. Replace with new items.
For information about purchasing wipers, contact your authorized Roland DG Corp. dealer.

When a warning beep sounds during wiper replacement

A warning beep sounds 10 minutes after operation begins. Stop work and close the front cover. Press ENTER to quit the wiper replacement menu. After that, restart the procedure from the beginning.

⚠CAUTION **Be sure to perform operations as specified in these instructions, and never touch any area not specified in the instructions.**
Sudden movement of the machine may cause injury.

1. Enter the WIPER REPLACE menu

❶

When the message shown in the figure appears, press ENTER.

❷ **Remove any media.**

❸ **Press MENU.**

❹

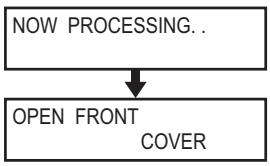
Press ▼ several times until the screen shown on the left appears.
Press ►, and then ▲.

❺

Press ►, and then ▼.

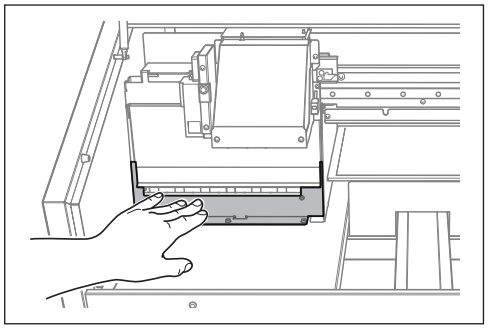
❻

Press ENTER.



The print-head carriage, and then the screen shown in the figure appears.

❼ **Open the front cover.**

❽ 

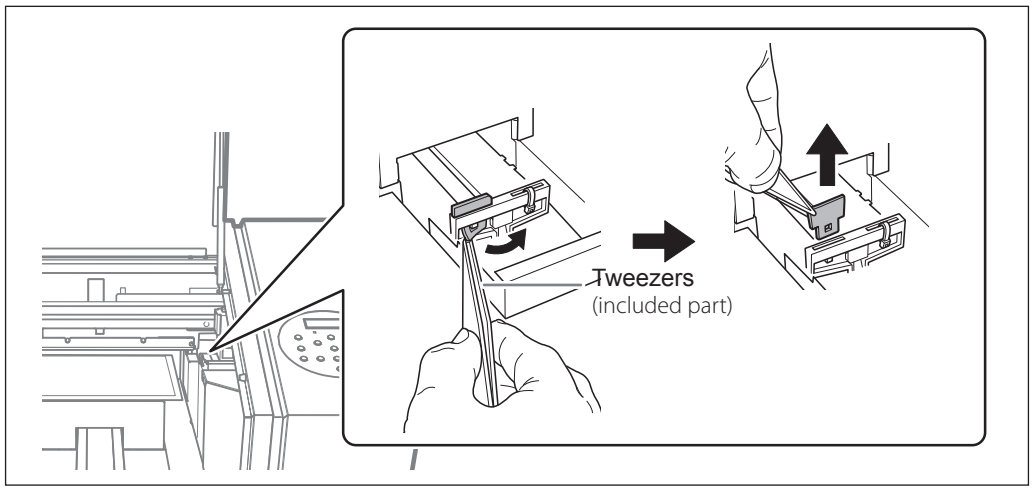
Touch the location shown in the figure (under the ink cartridge cover) to discharge any static electricity.

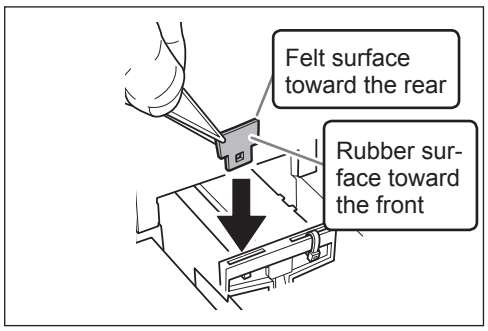
❾ FINISHED? ↵

Preparations are complete when this screen appears.

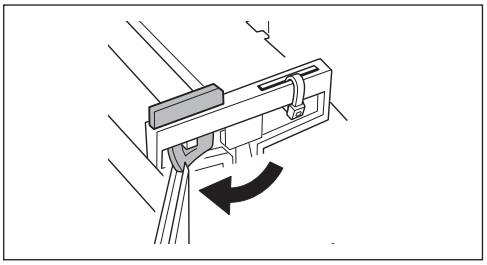
2. Replace the wipers.

❶ **Detach the old wipers.**
Detach the hook and pull up and out.



❷ 

Insert the new wipers.

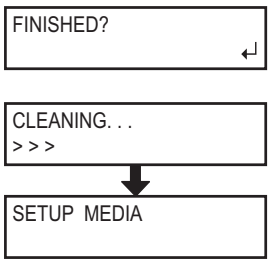
❸ 

Attach the hook.

3. Quit the wiper replacement menu.

❶ **Close the front cover.**

❷ **Press** ENTER **.**



After quitting the wiper replacement menu, the screen returns to the figure as shown.

Replacing the Filter

This section explains how to replace the filter used for the mist fan that adjusts scattering of ink mist. When the screen displays a message like the one shown, it means the item needs to be replaced. Replace with new items.
For information about purchasing filters, contact your authorized Roland DG Corp. dealer.

When a warning beep sounds during filter replacement

A warning beep sounds 10 minutes after operation begins. Stop work and close the front cover. Press ENTER to quit the filter replacement menu. After that, restart the procedure from the beginning.

⚠CAUTION **Be sure to perform operations as specified in these instructions, and never touch any area not specified in the instructions.**
Sudden movement of the machine may cause injury.

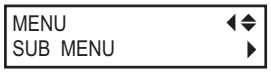
1. Enter the filter replacement menu.

❶

When the message shown in the figure appears, press ENTER.

❷ **Remove any media.**

❸ **Press MENU.**

❹ 

Press ▼ several times until the screen shown on the left appears.
Press ►, and then ▲.

❺

Press ►.
Press ▼ twice.

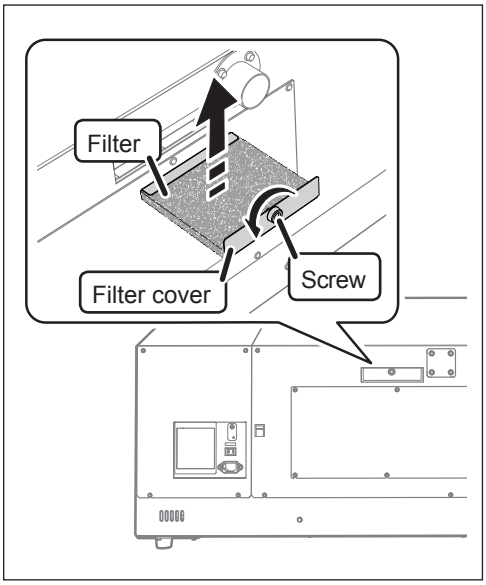
❻

Press ENTER.

Preparations are complete when this screen appears.

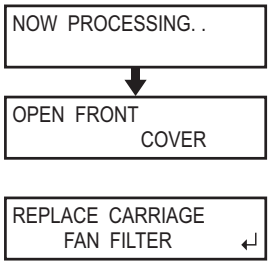
2. Replace filter.

❶



Replace rear mist fan's filter.
When replacing, wipe away any buildup of ink around the fan module with a cloth.

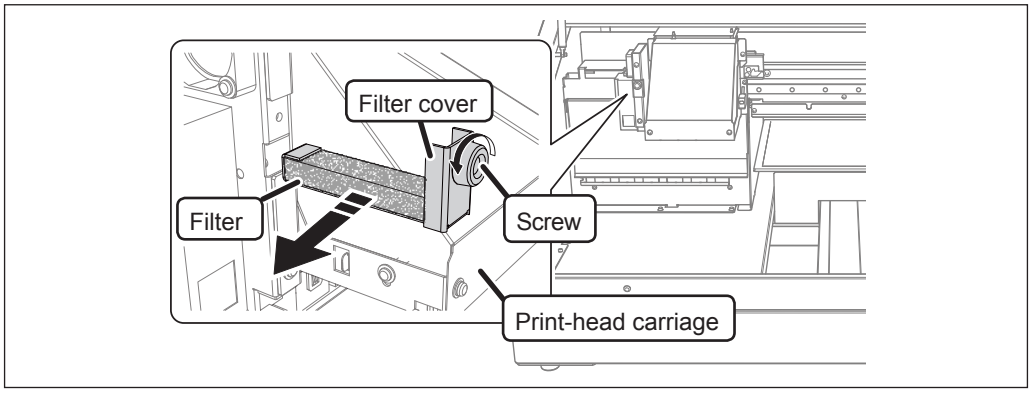
❷ **Press** ENTER **.**



The print-head carriage, and then the screen shown in the figure appears.
Open the front cover.

Preparations are complete when this screen appears.

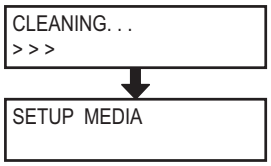
❸ **Replace carriage mist fan's filter.**



When replacing, wipe away any buildup of ink around the fan module with a cloth.

3. Quit the filter replacement menu.

1. **Close the front cover.**
2. **Press** ENTER **.**



After quitting the filter replacement menu, the screen returns to the figure as shown..

When Moving the Unit

Procedures from Preparing to Move Through Reinstalling

To move the machine, you must completely drain all ink inside the machine and secure the print heads in place with packing materials to protect them. Attempting to move the machine without first doing this may result in damage to internal components due to leaking ink or damage to the heads.
This operation requires six unused SOL INK cleaning cartridges (four for cleaning and two for refilling ink). Have these on hand before you start.

Important Notes on Moving

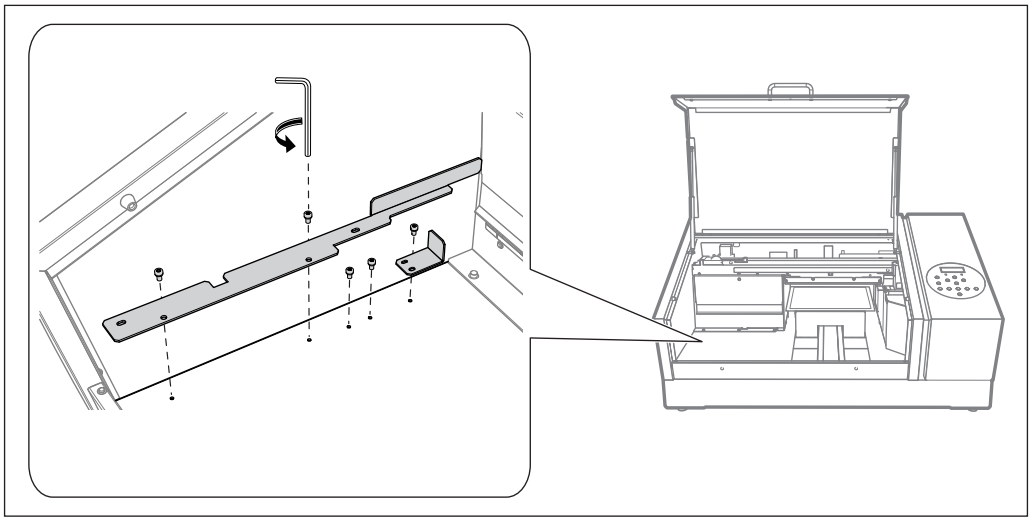
- Be sure to use SOL INK cleaning cartridges. Use of any other type may result in breakdown.
- Once the preparations for moving are complete, move the machine and fill it with ink with as little delay as possible. Allowing the machine to stand without ink may damage the print heads.
- When moving the machine, keep it at a temperature between 5 to 40˚C (41 to 104˚F) and at relative humidity between 20 to 80% (with no condensation). Failure to do so may result in breakdown.
- Handle the machine with care when moving, keeping it level (not tilted at an angle) and preventing it from striking other objects.

Procedure

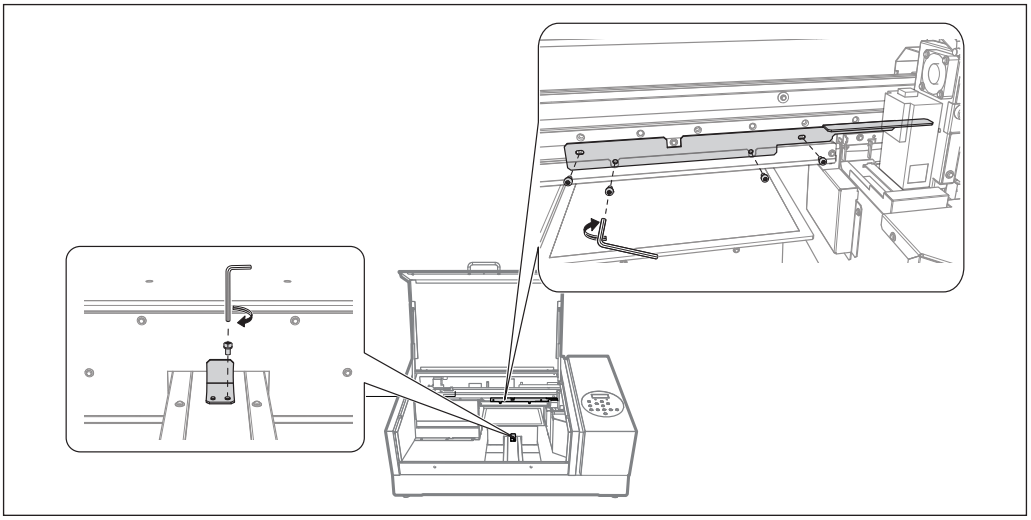
1 **Clean print heads.**
Perform steps on P. 63, "Cleaning All Print Heads".

2 **If the drain bottle and panel cover are detached, put them on.**

3 **Remove the stored packing.**



4 **Secure the print heads and the flat table.**



The machine is now ready to be moved.

5 **Move as soon as possible.**

6 **Immediately reinstall the machine and fill with ink.**

See "First Step Guide" and promptly fill with ink. When filling with ink, you use (two) SOL INK cleaning cartridges again.

Chapter 4
Appendix

Read this chapter whenever you face a problem. (FAQ) 76
- Printer Does Not Run 76
- Attractive Printing Is Not Possible 78
- The Print Heads Do Not Move 80

Handling Messages and Error Messages 81
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Printer Does Not Run

The Printer Unit Does Not Run

Is the power switched on?

Switch on the printer's main power, then press the sub power switch and make sure the sub power switch lights up.

☞ P. 10, “Switching the Power On and Off”

Is (SET UP) illuminated?

If (SET UP) is not illuminated, the printer cannot print. Complete up to setting the printer area, close the front cover, and press (SET UP).

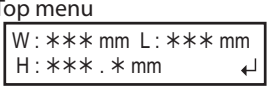
☞ P. 16, “Specify the print area directly”, P. 17, “Specifying the Print Area from the Print Center Position”

Are any covers open?

Close the front cover and the panel cover.

Is the top menu displayed?

Top menu



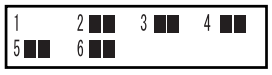
If the top menu is not displayed, output will not start even when data is sent from the computer. To go to the top menu, press (MENU), then press (◄).

Is (PAUSE) illuminated?

If (PAUSE) is illuminated printing is paused. To resume, press (PAUSE). (PAUSE) goes out, and output resumes.

☞ P. 26, "Pausing or Canceling Output"

Has ink run out?



When data is sent while the screen shown in the figure is displayed, a message appears and a warning beep sounds. At the same time, operation pauses. When the ink cartridge is replaced with a new one, output resumes.

☞ P. 50, “How to Replace the Ink Cartridge”

Is a message displayed on the screen?

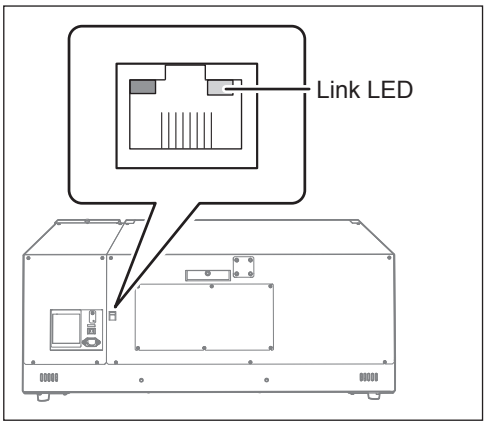
☞ P. 81, “A Message Appears”, P. 83, “An Error Message Appears”

Is the cable connected?

Connect the cable securely.

☞ “First Step Guide”

Is the Link LED lit?



If the Link LED for the Ethernet connector is not lit, the network connection has not been made correctly. Check whether or not the network routing is appropriate. Try connecting the computer and the machine to the same hub or connecting them directly using a crossover cable. If this makes it possible to perform output, it means the problem is in the network itself.

Are the network settings correct?

If output is not possible even though the link LED is on, make sure the IP address and other settings are correct. The settings on both the machine and the computer must be appropriate. Redo the settings, checking to ensure that the IP address does not conflict with the IP address for another device on the network, that the port setting for the software RIP specifies the IP address set on the machine, that the settings have no typing errors, and for other such problems.

☞ P. 45, “Viewing Information about the System of This Machine”, “First Step Guide”

Did the software RIP end abnormally?

Make sure the software RIP is running correctly, then switch the sub power switch off and back on.

☞ “Roland VersaWorks Quick Start Guide”

Is the temperature of the room too low?

Use the machine in an environment where the temperature is 20 to 32°C (68 to 90°F).

The Flat Table Does Not Move

Is something stuck in the X-axis, Y-axis, or Z-axis movable axes?

Check whether or not something is catching or stuck and interfering with operation.

Are any covers open?

Close the front cover and panel cover while starting up or printing. If any cover is open while starting up or printing, the flat table cannot be moved for your safety.

The Media Gap Sensor Does Not Sense Media

Is something covering the media gap sensor or has it attracted dust?

Check whether or not something is interfering with the media gap sensor's ability to sense.

Attractive Printing Is Not Possible

Printed Results Are Coarse or Contain Horizontal Stripes

Do the print heads show dot drop-out?

Carry out a printing test and make sure no dot drop-out occurs. If dot drop-out is present, perform head cleaning.

☞ P. 19, “Printing Test and Normal Cleaning”, P. 56, “Medium and Powerful Cleaning”, P. 62, “When Dot Drop-out of White or Gloss Ink Cannot be Cleared Up”, P. 63, “Cleaning All Print Heads”

Is the print mode suitable?

Try an appropriate print mode. Specific combinations of media and print mode may cause the colors to be uneven, and results may also vary greatly depending on the settings of your software RIP (such as the color-profile selection). Select settings appropriate for the media you are using.

Is the printer installed in a level and stable location?

Never install the machine in a location where it is tilted or where it may wobble or experience vibration. These factors may lead to dot-dropout or reduced printing quality.

Is the printer installed in a location out of direct sunlight?

Never install the machine in a location that is exposed to direct sunlight. Doing so may result in dot drop-out or other problems with reduced printing quality, or may even result in malfunction.

Is the media loaded and set up correctly?

If the media is not loaded correctly, printing may be adversely affected. Make sure the media is loaded and set up correctly.

☞ P. 11, "How to Secure the Media"; P. 13, "Set height position of media (automatic)"; P. 14,"Set height position of media (manual)"; P. 16, "Specify the print area directly"; P. 17, "Specifying the Print Area from the Print Center Position"

Colors Are Unstable or Uneven

Did you shake the ink cartridges gently before loading them?

Before loading a new ink cartridge, shake it gently.

Was printing paused partway through?

When printing is paused, the coloring at the seam may be altered when printing resumes. Avoid pausing printing. By default, printing pauses when ink remaining inside the machine runs out. Printing may also pause when data is not sent from the computer quickly enough. We recommend not performing any other tasks with the computer while printing is in progress.

Is the printer installed in a level and stable location?

Never install the machine in a location where it is tilted or where it may wobble or experience vibration. These factors may lead to dot-dropout or reduced printing quality.

Are the operating parameters set to appropriate values?

Depending on the settings for the [PERIODIC CL.] menu, uneven colors may occur. If the settings have been changed, try restoring them to their default values.

☞ P. 39, “Preventing Soiling of the Media and Dot Drop-out”

Is the printer being used in a location subject to severe changes in the operating environment?

Large fluctuations in temperature or humidity while printing is in progress may cause the colors to change partway through the printing. When printing, use the machine in a location where the temperature and humidity are stable.

Are the settings for the [PRESET] menu item appropriate?

If the settings selected with the [PRESET] menu item are not suitable for the type of media, printing may be adversely affected. Choose settings optimized for the media you are using.

☞ P. 32, “Fully Utilizing Preset Feature”

The Media Becomes Soiled When Printed

Are the print heads dirty?

The following may cause ink to drip on the media during printing.

- Buildup of fibrous dust (lint) around the heads
- Ink transferred to the heads due to rubbing against the media

If this happens, clean the print heads manually. We recommend carrying out periodic head cleaning.

☞ P. 58, “Manual Cleaning”

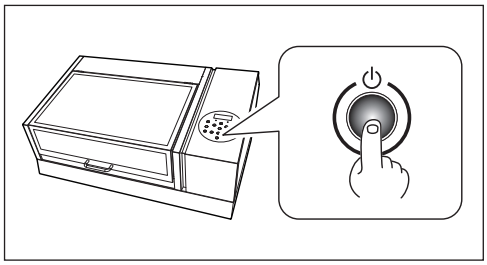
- Humidity is too low.

Use this machine in a 35-80% RH (non-condensation) environment.

The Print Heads Do Not Move

If the print-head carriage stops in the standby position (the right side of the main unit), take action immediately to prevent the heads from drying out.

What to Do First



Switch the sub power off, and then back on again. If the print-head carriage moves to the standby position (the right side of the main unit), the operation has ended successfully.

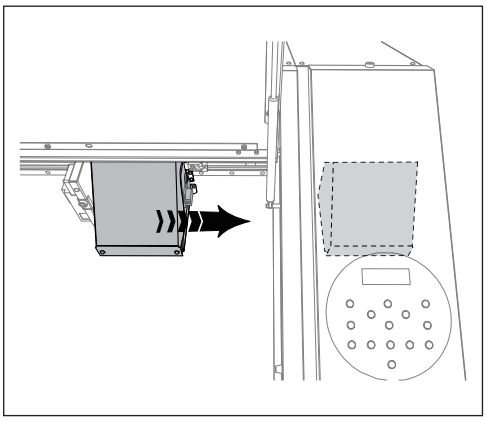
If the Heads Still Do Not Move

Try switching off the main power, then switching on the main power again, followed by the sub power.

If the Heads Still Do Not Move

If the heads still do not move, carry out the following emergency response measure, and then contact your authorized Roland DG Corp. dealer.

Procedure

1. **Turn off the main power switch.**
2. **Open the front cover.**
3. 

   Gently move the print heads into the stand-by position by hand.
   Stop when you hear the print heads click into place.
4. **Close the front cover.**

A Message Appears

These are the main messages that appear on the machine's display to prompt correct operation. They do not indicate any error. Follow the prompts and take action accordingly.

[1 2 ■ 3 ■ 4 ■ 5 ■ 6 ■]

Only a small amount of ink remains. Replace the ink cartridge indicated by the flashing number with a new cartridge.

[PRESS THE POWER KEY TO CLEAN]

This message appears when the machine has not been used for approximately a month. Turn on the sub power once a month.

☞ P. 48, “Introduction: About Maintenance”

[CIRCULATING INK]

White ink is being circulated inside the machine. This action is automatically performed to clear the white ink precipitation. Wait until the displayed message changes.

[SET CARTRIDGE]

Insert the ink cartridge indicated by the flashing number. This message appears at times such as during ink cartridge replacement.

[REMOVE CARTRIDGE]

Remove the ink cartridge indicated by the flashing number. This message appears at times such as during ink cartridge replacement.

[SET CL-LIQUID]

Insert the SOL INK cleaning cartridge into the slot(s) indicated by the flashing number. This message appears at times such as during head cleaning.

[REMOVE CL-LIQUID]

Remove the SOL INK cleaning cartridge indicated by the flashing number. This message appears at times such as during head cleaning.

[CLOSE THE COVER (FRONT COVER or PANEL COVER)]

Close both the front cover and the panel cover. To prevent print heads from drying, a warning beep sounds when one of these covers is left open for 10 minutes or more. Also, the carriage will not operate while a cover is open for safety reasons.

[SETUP MEDIA]

Reload the media and press SET UP. This message appears when an attempt to perform a printing test was made while no media was loaded.

[INSTALL DRAIN BOTTLE]

Check whether the drain bottle is installed. Install the drain bottle, then press ENTER.

[CHECK DRAIN BOTTLE]

This message appears when a certain amount of discharged fluid collects in the drain bottle. To clear the message, press ENTER. If this screen appears, go to the [DRAIN BOTTLE] menu and discard the discharged fluid in the bottle.

☞ P. 53, “Disposing of Discharged Ink”

[TIME FOR MAINTENANCE]

It is time to perform manual cleaning. After verifying, press ENTER.

☞ P. 58, “Manual Cleaning”

[TIME FOR WIPER REPLACE]

It is time to replace the wipers. After verifying, press ENTER.

☞ P. 66, “Replacing the Wiper”

[TIME FOR FILTER REPLACE]

It is time to replace the filters. After verifying, press ENTER.

☞ P. 69, “Replacing the Filter”

[READJUST TABLE HEIGHT]

The Height of the Media was Automatically Re-set, and Printing was Finished.

Although the media came into contact with the media gap sensor during printing, the height of the media was automatically re-set, and printing was finished because "CLEARANCE MODE" is set to "RE-ADJ".

☞ P. 14, "Set height position of media (manual)"; P. 16, Specify the print area directly; P. 17, "Specifying the Print Area from the Print Center Position"; P. 38 "Even when the media comes into contact with the media gap sensor during printing, automatic adjustment is performed to continue printing"

An Error Message Appears

This section describes the error messages that may appear on the machine's display, and how to take action to remedy the problem. If the action described here does not correct the problem, or if an error message not described here appears, contact your authorized Roland DG Corp. dealer.

[AREA TOO SMALL CONTINUE?]

The Size of the Data is Larger than the Print Area of the Loaded Media

To print immediately, press ENTER. The portion extending beyond the print area will not be printed. To stop printing, stop sending data from the computer and hold down SET UP for one second or longer. Make the print area wider by replacing the media with a larger piece of media or by changing the position of the media, then send the data again.

[PRINT AREA TOO SMALL]

The Size of the Test Print is Larger than the Print Area of the Loaded Media

Press any key on the operation panel to go back to the main menu. Make the print area wider by replacing the media with a larger piece of media or by changing the position of the media, then send the data again.

[CANCELED FOR TABLE HEIGHT]

Detected that the Media is in a Position (Height) of Hitting the Print Head

Remove the media or change its position. Press any key (except the sub power switch) on the operation panel, and the message disappears. If the setup of the media is completed, the setup is canceled. Redo the setup.

☞ P. 11, "How to Secure the Media"; P. 13, "Set height position of media (automatic)"; P. 14, "Set height position of media (manual)"; P. 16, "Specify the print area directly"; P. 17, "Specifying the Print Area from the Print Center Position"

[TEMPERATURE IS TOO HIGH **°C]

The temperature of the location where the machine is installed has risen above the ambient temperature at which the machine can operate

Operation cannot be continued. Turn off the sub power. The displayed temperature is the current ambient temperature of the installation location. Bring the installed location to a temperature at which operation is possible (20 to 32°C or 68 to 90°F) and allow the machine to come to room temperature, and then turn on the power.

[SERVICE CALL xxxx]

An unrecoverable error occurred, or part replacement that must be performed by a service technician is required

Note the number displayed on the display screen, and then switch off the sub power. After you switch off the power, inform your authorized Roland DG Corp. dealer of the number that appeared on the display screen.

[TEMPERATURE IS TOO LOW **°C]

The temperature of the location where the machine is installed has fallen below the ambient temperature at which the machine can operate

Operation cannot be continued. Turn off the sub power. The displayed temperature is the current ambient temperature of the installation location. Bring the installed location to a temperature at which operation is possible (20 to 32°C or 68 to 90°F) and allow the machine to come to room temperature, and then turn on the power.

[DATA ERROR CANCELING...]

Output was stopped because a problem was found in the data received

Operation cannot be continued. Check whether or not there is an error in the data. Check for a problem with the connector cable or the computer, and redo the operation from the starting with loading the media.

[WRONG CARTRIDGE]

A cartridge that cannot be used was installed

Remove the ink cartridge to clear the error. Use an ink cartridge of the specified type.

[WRONG HEAD IS INSTALLED]

A print head that cannot be used is installed

Turn off the sub power. After turning the power off, contact the your authorized Roland DG Corp. dealer.

[AVOIDING DRY-UP TURN POWER OFF]

The print heads were forced to standby position to prevent them from drying out

Operation cannot be continued. Switch the sub power off, and then back on. Opening the front cover while printing is in progress causes an emergency stop. Never allow the print heads to remain in this state.

[MOTOR ERROR TURN POWER OFF]

A motor error occurred

Operation cannot be continued. Turn off the sub power. Next, eliminate the cause of the error, then immediately switch on the sub power. If the machine is allowed to stand with the error uncorrected, the print heads may dry out and become damaged. This error may be caused by the media being set incorrectly.

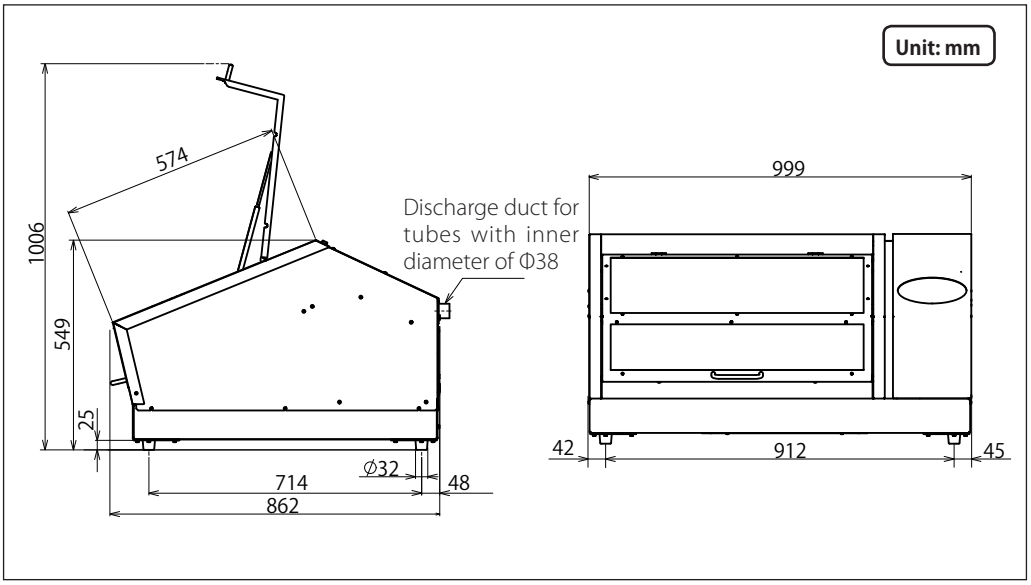
[CANCELED FOR MOTOR PROTECTION]

Continuous operation made the pump motor become hot so operation was paused

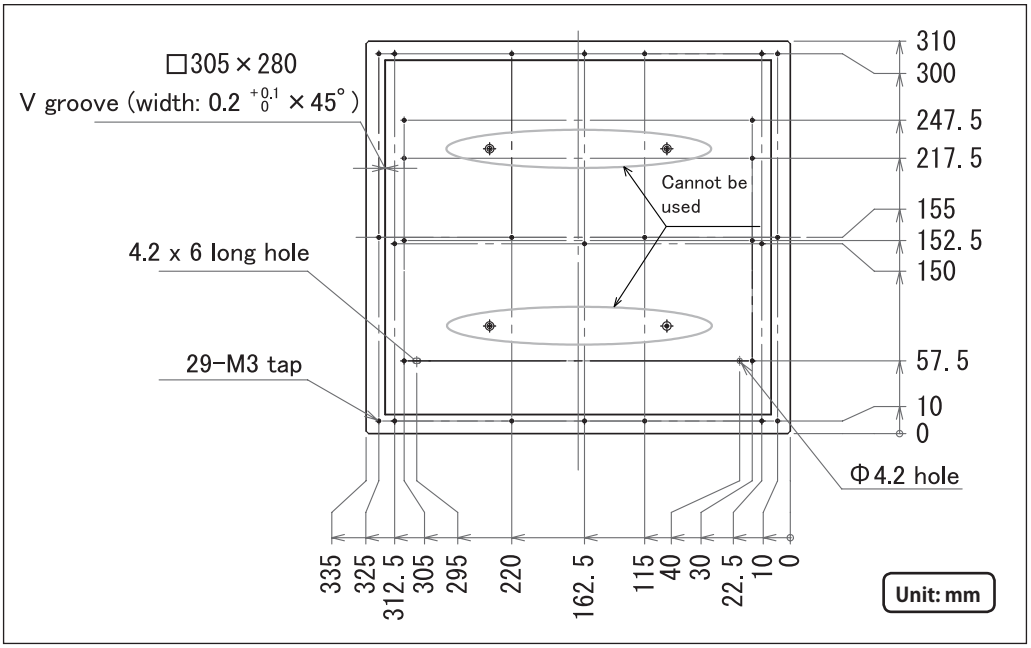
Press any key to clear the error. Allow the machine to stand for approximately 40 minutes before resuming operation.

Dimensional Drawing

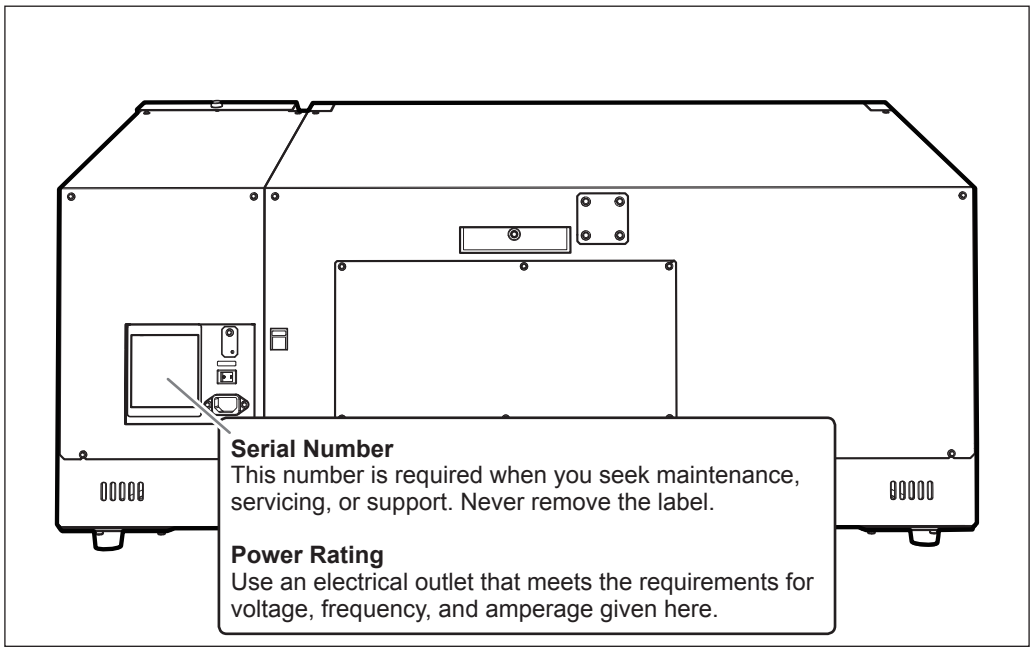
Outer Dimensions



Flat Table Dimensions



Locations of the Power Rating and Serial Number Labels

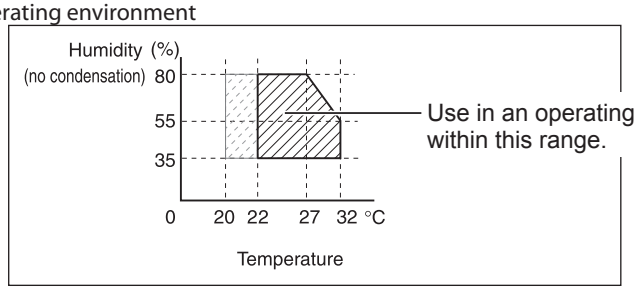

Serial Number
This number is required when you seek maintenance, servicing, or support. Never remove the label.
Power Rating
Use an electrical outlet that meets the requirements for voltage, frequency, and amperage given here.

Specifications Table

		LEF-12
Printing method		Piezo ink-jet method
Acceptable media	**Width**	Maximum 335 mm (13.2 in.)
	Length	Maximum 310 mm (12.2 in.)
	Thickness	Maximum 100 mm (3.94 in.)
	Weight	Maximum 5 Kg (11lbs.)
Maximum printing width/printing length		Maximum 305 (width) x 280 (length) mm (12 x 11 in)
Ink cartridges	**Types**	ECO-UV 220 cc cartridge
	Colors	Six colors (cyan, magenta, yellow, black, white, and gloss)
Ink-curing unit		Built-in UV-LED Lamp
Print Resolution (dpi)		Maximum 1440 dpi
Distance accuracy (when printing) (*1)		Error of less than ± 0.3 % distance ± 0.3 mm, whichever is greater
Connectivity		Ethernet (10BASE-T/100BASE-TX, automatic switching)
Power-saving function		Automatic sleep feature
Power requirements		AC 100 to 240 V ± 10%, 1.8 A, 50/60 Hz
Power consumption	**During operation**	156 W
	Sleep mode	16.7 W
Acoustic noise level	**During operation**	60 dB (A) or less
	During standby	49 dB (A) or less
Outer dimensions		999 (width) x 862 (depth) x 549 (height) mm (39.3 x 33.9 x 21.6 in)
Weight		85 Kg(187.4 lbs.)
Environment	**During operation (*2)**	Temperature: 20 to 32°C (68 to 90°F) (22°C/72°F or higher is recommended) Humidity: 35 to 80% RH (no condensation)
	Not operating	Temperature: 5 to 40°C (41 to 104°F), Humidity: 20 to 80% RH (no condensation)
Accessories		Power cord, adhesive sheet, software RIP (Roland VersaWorks), user documentation, etc.

(*1)
Temperature: 25°C (77°F), humidity: 50%

(*2)
Operating environment



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